Imagine COMMUNICATIONS

Installation and Operation Manual

Nexio® IconLogo™ Multidefinition

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Publication Information

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Preface

Manual Information

Purpose

This manual details the features, installation, operation, maintenance, and specifications of the NEO® IconLogo multidefinition and audio GPI/GPO breakout module.

Audience

This manual is written for technicians and operators responsible for installation, setup, maintenance, and operation of the IconLogo multidefinition and audio GPI/GPO breakout module.

Revision History

Table P-1 Revision History of Manual

Edition	Date	Revision History
A	February 2008	Initial production release
B	August 2008	■ Added information concerning automatic clocks ■ Added new CCS control parameters ■ Removed references to MGI-3903V
D	June 2009	Added information concerning-ICONL-RB and ICONL-BO
E	May 2010	Change to supported automation systems
F	August 2012	Addition of Operator and All parameter lists
3.8	June 2014	Rebranding

Writing Conventions

To enhance your understanding, the authors of this manual have adhered to the following text conventions:

Table P-2 Writing Conventions

Term or Convention	Description
Bold	Indicates dialog box, property sheet, field, button, check box, list box, combo box, menu, submenu, window, list, and selection name
Italics	Indicates email addresses, names of books and publications, and first instances of new terms and specialized words that need emphasis
CAPS	Indicates a specific key on the keyboard, such as ENTER, TAB, CTRL, ALT, DELETE
Code	Indicates variables or command-line entries, such as a DOS entry or something you type into a field
>	Indicates the direction of navigation through a hierarchy of menus and windows
hyperlink	Indicates a jump to another location within the electronic document or elsewhere
Internet address	Indicates a jump to a website or URL
	Indicates important information that helps to avoid and troubleshoot problems

Obtaining Documents

Technical documents can be viewed or downloaded from our website. Alternatively, contact your Customer Service representative to request a document.

Unpacking the Module

Before you install and configure NEO modules, follow these steps:

1. Check the equipment for any visible damage that may have occurred during transit.
2. Make sure that you have received all items listed on the packing list.
3. Remove the anti-static shipping pouch, if present, and all other packaging material.
4. Save the original packaging materials for possible reuse.
5. Contact your Sales representative if parts are missing or damaged.

   Keep at least one set of original packaging in the event that a product needs to be returned for service. If the original package is not available, you can supply your own packaging as long as it meets the following criteria:

   - The packaging must be able to withstand the product's weight.
   - The product must be held rigid within the packaging.

- There must be at least two in. (five cm) of space between the product and the container.
- The corners of the product must be protected.

If the product is still within the warranty period, we will return it to you by prepaid shipment after servicing.

Safety Standards and Compliances

See the *NEO Safety Instructions and Standards Manual* to find the safety standards and compliances for this NEO series product. A safety manual is shipped with every *FR-3901, FR-3903, and FR-3923 Mounting Frames Installation and Operation Manual* and can be downloaded from our website. Alternatively, contact your Customer Service representative for a copy of this safety manual.

Safety Terms and Symbols

This manual uses the following safety terms and symbols. See your *NEO Safety Instructions and Precautions Guide* for more information.

WARNING

Statements identifying conditions or practices that may result in personal injury or loss of life. High voltage is present.

CAUTION

Statements identifying conditions or practices that can result in damage to the equipment or other property.

Restriction on Hazardous Substances (RoHS) Directive

Directive 2002/95/EC—commonly known as the European Union (EU) Restriction on Hazardous Substances (RoHS)—sets limits on the use of certain substances found in electrical and electronic equipment. The intent of this legislation is to reduce the amount of hazardous chemicals that may leach out of landfill sites or otherwise contaminate the environment during end-of-life recycling. The Directive, which took effect on July 1, 2006, it refers to the following hazardous substances:

- Lead (Pb)
- Mercury (Hg)
- Cadmium (Cd)
- Hexavalent Chromium (Cr-V1)
- Polybrominated Biphenyls (PBB)
- Polybrominated Diphenyl Ethers (PBDE)

In accordance with this EU Directive, all products sold in the European Union are fully RoHS-compliant and "lead-free." (See our website for more information.) Spare parts supplied for the repair and upgrade of equipment sold before July 1, 2006 are exempt from the legislation. Equipment that complies with the EU directive is marked with a RoHS-compliant symbol, as shown in **Figure P-1**.

Figure P-1 RoHS Compliance Symbol

Waste from Electrical and Electronic Equipment (WEEE) Directive

The European Union (EU) Directive 2002/96/EC on Waste from Electrical and Electronic Equipment (WEEE) deals with the collection, treatment, recovery, and recycling of electrical and electronic waste products. The objective of the WEEE Directive is to assign the responsibility for the disposal of associated hazardous waste to either the producers or users of these products. Effective August 13, 2005, producers or users are required to recycle electrical and electronic equipment at end of its useful life, and must not dispose of the equipment in landfills or by using other unapproved methods. (Some EU member states may have different deadlines.)

In accordance with this EU Directive, companies selling electric or electronic devices in the EU will affix labels indicating that such products must be properly recycled. (See our website for more information.) Contact your local sales representative for information on returning these products for recycling. Equipment that complies with the EU directive is marked with a WEEE-compliant symbol, as shown in **Figure P-2**.

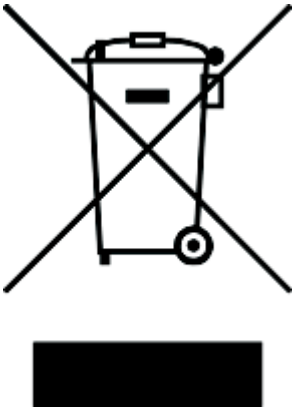


Figure P-2 WEEE Compliance Symbol

1 Introduction

Overview

This chapter covers the following topics:

- ***Applications*** on page 8
- ***Circuit Description*** on page 16
- ***Functional Block Diagrams*** on page 16
- ***Logo Creation and Transfer*** on page 8
- ***Main Features*** on page 2
- ***Major Components*** on page 9
- ***Product Description*** on page 1

See the *FR-3901 and FR-3903 Installation and Operation Manual* for information about NEO frames. The frame manual includes information about these items:

- General information about module unpacking, installation, removal, navigation, configuration, and setup
- Card-edge screen savers
- State recovery parameters
- Fan modules
- Resource modules
- Alarm interconnect modules
- Power supplies
- Genesis adapters
- Servicing instructions

Product Description

The IconLogo family of products provides you with corporate branding capabilities, commercial spots, and program promos, in the form of static and animated graphics logos. The IconLogo family builds on the success of its predecessors, providing an equivalent feature-rich system for both HD and SD.

IconLogo

IconLogo includes the following configurations:

- ICONL-RB, Multi-definition support: SD525, SD625, 1080i50/59, and 720p50/59, with relay bypass, and large font support

IconLogo can layer up to four graphics layers over the Program Input. IconLogo can also output four composited graphics layers in Key/Fill (Alpha/Fill) output mode. It supports both standard definition and high definition video formats. Switching between standard definition and high definition does not require rebooting the system which is an added benefit in today's Multi-format environments. IconLogo also provides an external Key and Fill inputs, which can be inserted into any one of the four layers.

IconLogo LITE

IconLogo LITE is a single layer graphic inserter and downstream keyer, with all of the features and capabilities of a standard IconLogo on-air channel branding system. IconLogo LITE can be used "out of the box" without the need for a separate control panel. (A control panel is needed for advanced configuration and control, however.)

Main Features

The NEO IconLogo can insert up to four independent layers of graphics onto the program feed (for both high definition and standard definition). Any of the layers may be replaced with an external Fill and Key input.

A removable compact flash drive provides ample storage for logos, animations and short audio/video clips. Network storage is likewise supported, and provides virtually unlimited logo storage (see ***Logo Storage and Loading*** on page 121).

The LogoCreator GUI provides convenient off line conversion and logo transfer capabilities (see Chapter 4: "LogoCreator Software Application").

IconLogo has the ability to decode EAS messages out of an EAS receiver box using an RS-232 serial port to decode the information from the EAS receiver.

The Content Editor application has the ability to configure text entries used in conjunction with the Text Crawl and Titling logos. Continuous crawling can be configured for Text Crawl logos. It also includes a separate Font Utility for creating custom fonts (see "Creating Fonts" on page 72).

The RSS/ODBC/XML options enable text streaming from RSS feeds or open database connectivity (ODBC) databases. They can be used for web interface information streams such as school closings.

Basic Features

IconLogo can have up to 999 logos available for instant access at all times after power-up. Each of these logos may be one of the following types:

- Static logo
- Animation
- Analog clock[1]
- Digital clock[1]
- Quick select
- Text crawl and titling (including EAS and Amber Alerts)

[1] This feature cannot be successfully configured in IconLogo LITE without the use of an IconLogo control panel.

Each logo can appear anywhere on the screen with variable opacity and fade rates, and have various keying modes. Each logo may have an audio source associated with it for playback while the logo is on air.

IconLogo has four fixed-priority layers, which allows up to four logos of any type on air at any time.

Selection, preview, and transitions of logos are performed on a per-layer basis. All manual on-air operations apply to the layer currently selected with the layer buttons on the left-hand side of the control panel.

Layers are numbered 1 through 4 (with Layer 1 having the highest priority and Layer 4 having the lowest priority, should logos overlap anywhere on screen).

Logo Features

A logo can consist of components from a wide variety of different combinations of files, external sources, and internally-generated sources. The combinations available are as follows:

- A fill file and a separate key file
- A fill and key from the same file (some formats have an alpha or key channel – mg2, mgi, vpb)
- A fill file with an internally generated bounding rectangle key (soft edged)
- A fill file with a self key
- A fill file with an external key source
- An internally-generated matte color with a key file
- An internally-generated matte color with an external key source
- An external fill source with a key file
- An external fill source with a bounding rectangle (full fill image shown)
- An external fill source with an external key source
- An external fill source with self key from the fill source
- No fill or key sources at all (see audio sources below)

Where appropriate, the keying mode of the logo can be changed from “key mode” to “matte mode,” for use with a graphic with both anti-aliased fill and key sources. The key source can also be inverted (if the key source happens to be in reverse; for example, black on white).

IconLogo loads all graphics and audio files in their native formats. Any conversion required is performed either “on the fly” or off-line via the LogoCreator application. The graphics formats that may be used directly are as follows:

- IconLogo logo format (*.mg2)
- Targa (*.tga)
- Tiff (*.tif, *.tiff)
- Gif (*.gif) (not supported by LogoCreator)
- PC Paintbrush format (*.pcx)
- Microsoft® Windows®[1] Bitmap (*.bmp)
- Silicon Graphics Image Format (*.sgi, *.rgb)
- Portable Network Graphics (*.png)

[1] “Windows” and “Microsoft” are registered trademarks of Microsoft Corporation in the United States and/or other countries.

- Leitch LogoMotion (previous generation) logo format (*.mgi)
- Portable Bitmap (*.pbm) (not supported by LogoCreator)
- Portable GreyMap (*.pgm) (not supported by LogoCreator)
- Portable PixelMap (*.ppm) (not supported by LogoCreator)
- JPEG (*.jpg)
- Quantel Video Paintbox format (*.vpb) (not supported by LogoCreator)

Audio Features

Each logo may have an associated audio clip, which may be played back when taken to air, cued from the remote panel or automation system. The clip may even be set up to play periodically (for example, every hour). Logos can consist of audio clips without any graphic components. Audio sources on a logo may be one of the following:

- An audio file
- External AES input (to provide a voice-over capability)

Audio file formats that may be used directly may be one of the following:

- Microsoft WAV (*.wav)
- Apple® Macintosh®[1]/SGI Audio Interchange File Format (*.aif, *.aiff, *.aifc [uncompressed only])

For logos that contain an audio source, their playback levels can be adjusted from 0-100% (default 100%). Also, the program audio level output of the system can be ducked in order to hear the voice-over or logo audio more clearly (such as during continuity announcements).

Duck Level is adjustable 0-100% with the default level being 0% (that is, no program level change during playback).You can select individual channels for logo playout, unity, or program level duck.

Animation Features

Animations load their graphics from mg2, mgi or individual numbered files. In the last case, the files must have names which contain a number sequence like anim001.tga, anim002.tga, anim003.tga…, and must all be in the same directory.

An animation may be an animated version of a typical on-air logo, which has both fill and key elements for overlaying a small portion of the video picture; or it may be a full-screen video clip with associated audio (for example, a channel bug).

When an animation is cued to air (either cut or faded on) it may have one of the following play modes:

- Play when taken to air during fade up
- Play when taken to air after fading up
- Play after a given delay
- Sit on first frame of animation waiting for manual- or automation-controlled start

When an animation has finished playing, it may be paused for a given period before performing one of the following actions:

- Stop on last frame
- Recue onto the first frame

[1] "Apple" and "Macintosh" are registered trademarks of Apple Computer Inc. in the United States and/or other countries.

- Replay from the beginning (continuous cycle mode)
- Fade down
- Cut logo off layer
- Cue the next logo in a sequence

Analog Clock Features

Analog clocks[1] consist of three separate graphics elements (four, if a moving seconds hand is required), each of which is effectively a logo that consists of both fill and key elements. The graphic sources for these elements are selected from the Logo menu, in the same way as sources are selected for static logos and animations. The elements required for an analog clock are

- Face graphic – a graphic showing the clock face
- Hour hand graphic – Shown in the 12 o'clock position
- Minute hand graphic – Shown in the 12 o'clock position
- Second hand – Shown in the 12 o'clock position

The rotation center for the hands and face may be altered at any time during setup. When first selected, they are automatically set to be as follows:

- For all hands
  - Horizontally – central
  - Vertically – 5% of the vertical height of the graphic from the bottom
- For the face
  - Horizontally – central
  - Vertically – central

A time offset from a central time source can be set up for each clock logo.

Digital Clock Features

Digital clocks[1] consist of a face graphic and a graphic containing the digits 0-9 and other characters required by the time and temperature display. Digital clocks have the following features:

- Time with or without seconds
- Time with temperature (in either order)
- Temperature on its own
- 12-hour or 24-hour time display
- Variable font spacing
- Variable separation between time and temperature
- Adjustable positioning of characters on background
- Centigrade or Fahrenheit display (with or without degree symbol)
- Time offset from a central time source (offset can be set up for each logo)

External inputs for time code (either LTC or DCF) provide synchronization for real time on-air clocks. An internally-generated time code may also be used.

[1] This feature cannot be successfully configured in IconLogo LITE without the use of a control panel.

Quick Select Feature

Quick Select is essentially a macro logo that allows you to trigger up to four logos (on four layers) simultaneously as a single logo. You can create Quick Selects using the LogoCreator application or control panel.

Text Crawl and Titling Features

Text can be either a static object or a crawling object. Text is entered through the keyboard. The static text (Text Titling) can include up to 12 independent sentences. The crawling object feature (Text Crawl) has a maximum of 30 independent sentences. In both cases, each sentence can have its own fonts, spacing, color, and origin.

Logo Storage

The IconLogo supports 2 types of storage[1]: on line and near line.

- On line storage is a volatile DDR2 DIMM used for logo playout. It is limited practically to 4 GB. The device can be ordered in different memory capacities and can be upgraded to a larger capacity later.

  Using LogoCreator and an mg2 logo format could significantly reduce memory utilization.
- Near line storage is either compact flash memory or a network file system (NFS)-mounted PC hard drive. Compact flash cards can be purchased in capacities of 8 GB or more. NFS provides practically unlimited storage capacity.

The advanced logo management feature allows you to load only logos you need into DDR2, not all the logos stored in the near line storage device.

Video and Audio Interfaces

There are three video inputs:

- Program input
- Fill input
- Key input

There are four video outputs:

- Program output (or fill output in fill/key mode)
- key output
- Clean output (essentially the incoming video stream is looped back out; that is, active loopthrough)
- Preview output

The IconLogo will operate in the typical program output mode or can be set to run in fill/key mode, in which the incoming program video stream is ignored.

The IconLogo can be synchronized to one of four sources:

- Program itself
- Fill
- Key

[1] IconLogo also supports the concept of virtual storages. They allow you to group logos using meaningful names like “evening news” and “morning news.”

- Dedicated reference input

NOTE

If the Program Input will be switched by an upstream router or production switcher, it is strongly recommended that you synchronize to the Reference Input.

The IconLogo supports up to four AES audio groups as per SMPTE 272M. However, only two audio groups can be embedded onto an outgoing video stream at a time. The MGI control interface allows one to select the required two groups out of the total four. Since each AES group has four audio channels (normally organized into two audio paris), this means a total of eight simultaneous audio channels are supported. Audio groups present in the incoming video stream but are chosen to be ignored can simply be driven out by the MGI without changes.

Audio can also be embedded onto the outgoing video stream from discrete audio coming in as AES packets through the dedicated audio interface. In similar fashion, embedded audio from the incoming video stream can be de-embedded and driven out as AES packets through the dedicated audio interface.

In either case (embedded audio or discrete audio), audio logos can be mixed into the outgoing embedded video stream.

Control Interfaces

The IconLogo offers extended real-time control capabilities through the control panel, automation, and GPI interfaces.

The ergonomically designed control panel has a built-in LCD display. The control panel provides complete manual control of the device including the configuration and customization of all parameters and settings.

An optional control panel graphical user interface (GUI) is a PC-based application that offers the same control of the device as the hardware control panel with some additional features.

The IconLogo supports several automation protocols including MGI.

There are 12 independent GPI inputs that are configurable with rising edge, falling edge, or level triggering.

Service Monitoring and Management Interfaces

As with all NEO modules, the IconLogo fully supports CCS. Its Pilot/Navigator applications provide GUI-based status and alarm monitoring, and parameter setup. The SNMP interface allows integration with third-party management applications.

The NEO card-edge display and LED indicators allow the user to monitor the status locally.

There are six fully programmable GPI outputs that allow for additional monitoring capabilities.

Logo Creation and Transfer

Logo Creation

The IconLogo supports two mechanisms for logo creation.

- Internal conversion within the IconLogo unit

  Internal logo creation involves the transfer of graphic files to the IconLogo via FTP, NFS, or the physical insertion of a Compact Flash card. This operation uses the control panel. Conversion to internal playout format happens on the fly every time the logo is loaded into DDR2 from local storage.
- Externally using LogoCreator

  External logo creation uses the Windows-based GUI application, LogoCreator. It allows the creation of logos from fill and key graphic files and stores them as an mg2 logo file.

Logo Transfer

The IconLogo supports several transfer mechanisms.

- File Transfer Protocol (FTP): FTP allows the transfer of graphic content from a PC to the device. It requires a third party FTP GUI application.
- Network File System (NFS): NFS allows remote disks on a PC to be accessed as local disks on the device. It requires third party server software to be installed on the PC. NFS allows increased storage capacity of the device; however, the logo playout speed will be affected by network or PC failure.
- Physical insertion of a compact flash memory card: Physical transfer on a compact flash memory card requires a compact flash reader on a PC. It involves manual interactions for each transfer.
- Logo Transfer Protocol (LTP): LTP allows logo transfer using a company-developed Windows Explorer plugin. Logos created using LogoCreator can be transferred directly to the IconLogo.

Applications

The NEO platform is ideal for space-constrained operations demanding full local and remote control capabilities in a branding solution. It is especially useful where professional end-users require a small, flexible, on-air quality routing matrix with the ability to mix and match signal formats and/or signal processing functions within the same frame. Applications include the following:

- Television production facilities
- Cable operators
- Production and post-production facilities
- Outside broadcast vans/trucks
- DBS satellite operations

Major Components

Front Module

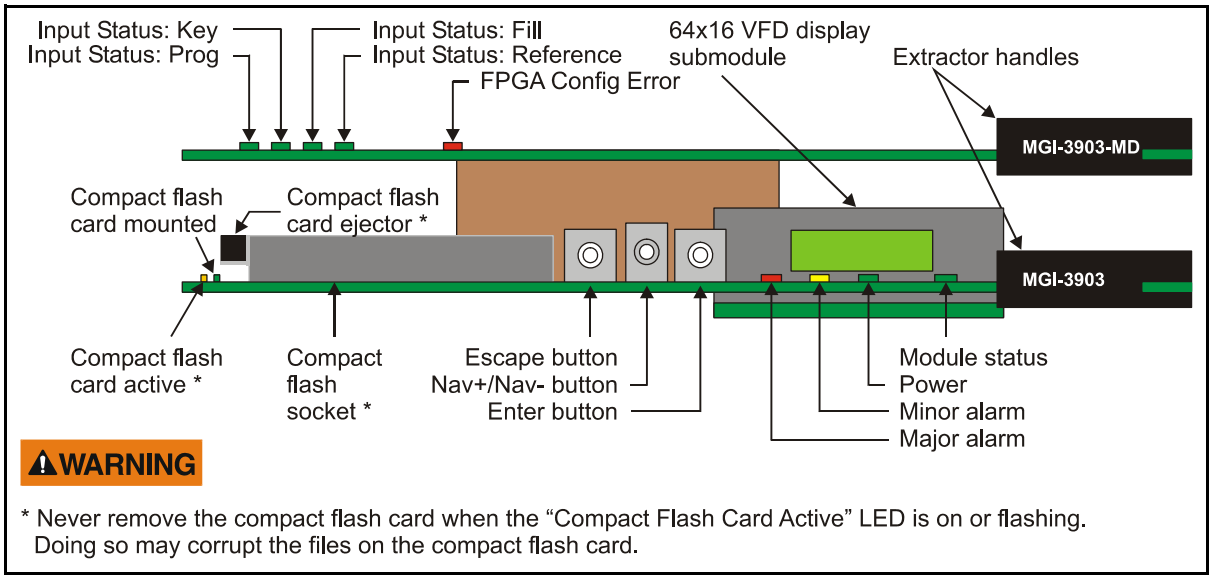


Figure 1-1 ICONL-RB Front Module (Front View)

NOTE

At power-up the FPGA Config Error LED is red to indicate that it is ON. If the FPGA configures properly after one minute after power-up, this LED will be OFF.

Back Connector Module

The IconLogo back connector module is placed directly behind the front modules, facing the rear. **Figure 1-2** shows the back module connections for the ICONL-RB.

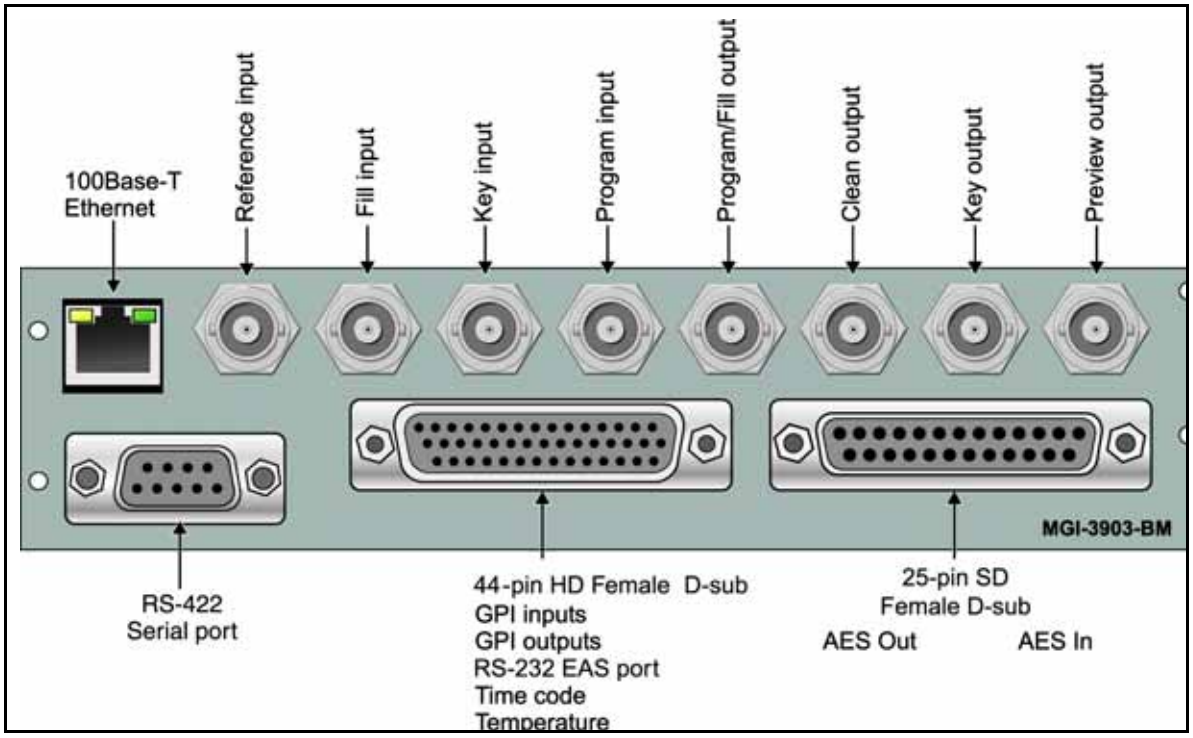


Figure 1-2 ICONL-RB Back Module

Pinouts

Figure 1-3 shows the D-subminiature (D-sub) pinouts for the serial communications, GPI/LTC/Temperature, and AES connectors.

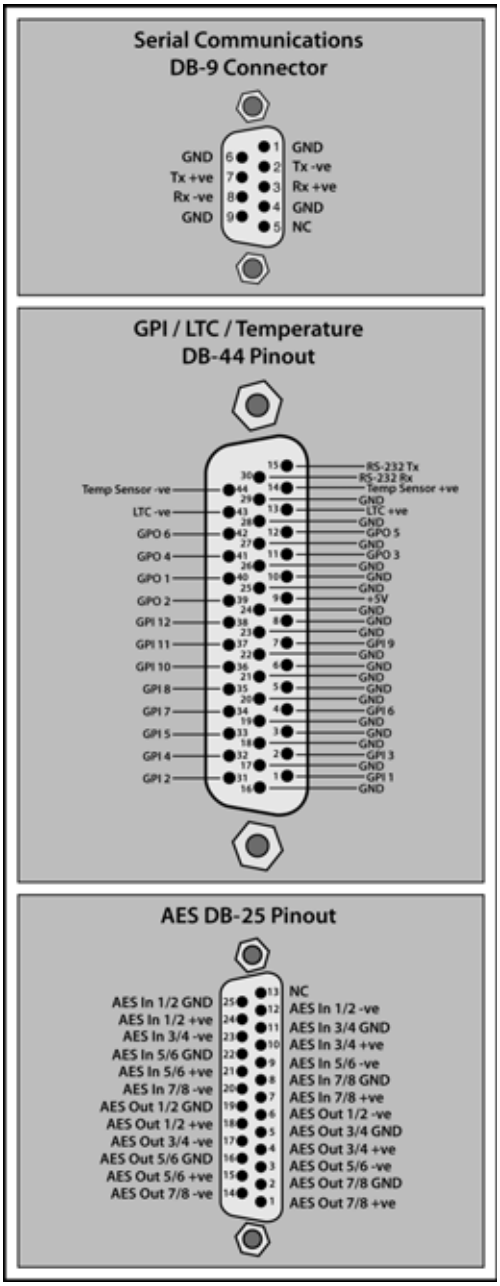


Figure 1-3 IconLogo Back Module D-Sub Pinouts

ICONL-BO Breakout Module Option

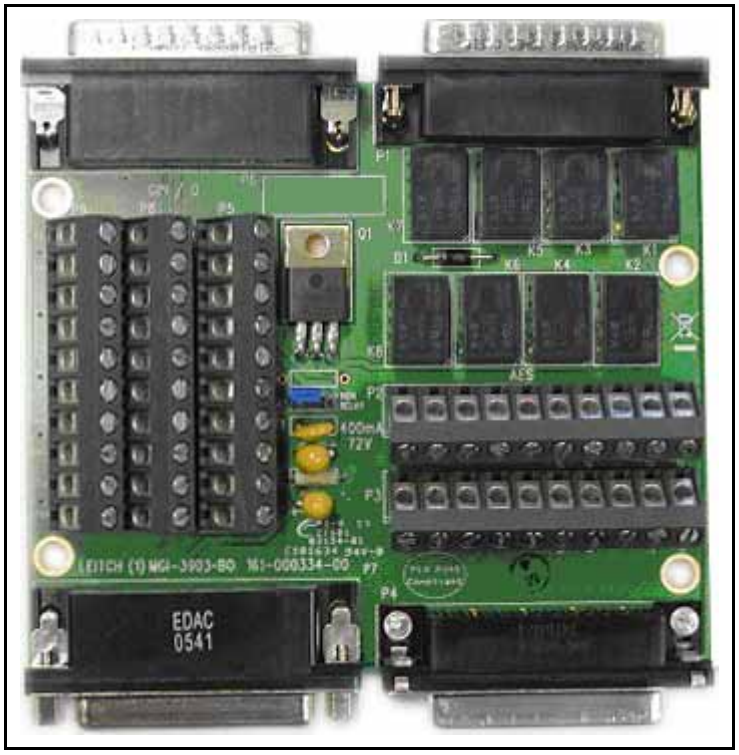


Figure 1-4 ICONL-BO Breakout Module

The ICONL-BO is the optional breakout module for the IconLogo system. The breakout module connects directly to the 44- and 25-pin connectors on the IconLogo back module, and converts the pin connectors to terminal block screw connectors. The 44- and 25-pin female connectors on the opposite side of the breakout module correspond exactly to the pinouts on the IconLogo back module connectors. This allows the breakout module to be added into existing systems using existing cables. **Figure 1-5** on page 13 shows an ICONL-BO module connected to the back module of an IconLogo.

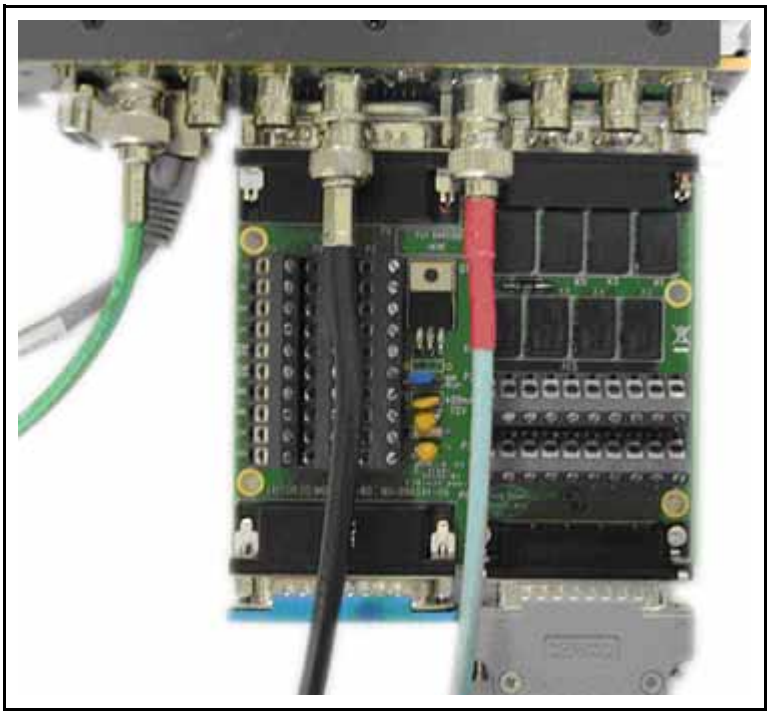


Figure 1-5 ICONL-BO IconLogo Connection

ICONL-BO Terminal Block Screw Connector Pinouts

Table 1-1 Pinouts

Terminal	P2	P3	P5	P8	P9
10	OUTPUT CH3 P	OUTPUT CH4 P	GPI 9	GPO 6	TX
9	OUTPUT CH3 N	OUTPUT CH4 N	GPI 8	GPO 5	RX
8	GND	GND	GPI 7	GPO 4	GND
7	OUTPUT CH2 P	OUTPUT CH1 P	GPI 6	GPO 3	+5
6	OUTPUT CH2 N	OUTPUT CH1 N	GPI 5	GPO 2	TEMP SEN–
5	INPUT CH4 P	INPUT CH3 P	GND	GND	TEMP SEN +
4	INPUT CH4 N	INPUT CH3 N	GPI 4	GPO 1	GND
3	GND	GND	GPI 3	GPI 12	GND
2	INPUT CH2 P	INPUT CH1 P	GPI 2	GPI 11	LTC–
1	INPUT CH2 N	INPUT CH1 N	GPI 1	GPI 10	LTC+

Relay Bypass

The ICONL-BO module provides relay bypass for the discrete AES audio channels on the IconLogo. **Figure 1-6** shows one signal path in the OFF state. **Figure 1-7** shows one signal path in the ON state. (Paths are differential; there are 4 AES paths.)

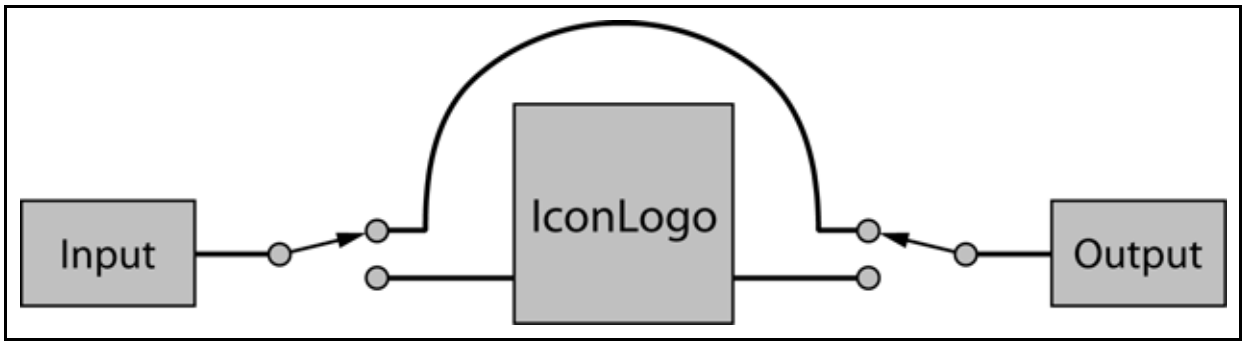


Figure 1-6 One Signal Path — OFF State

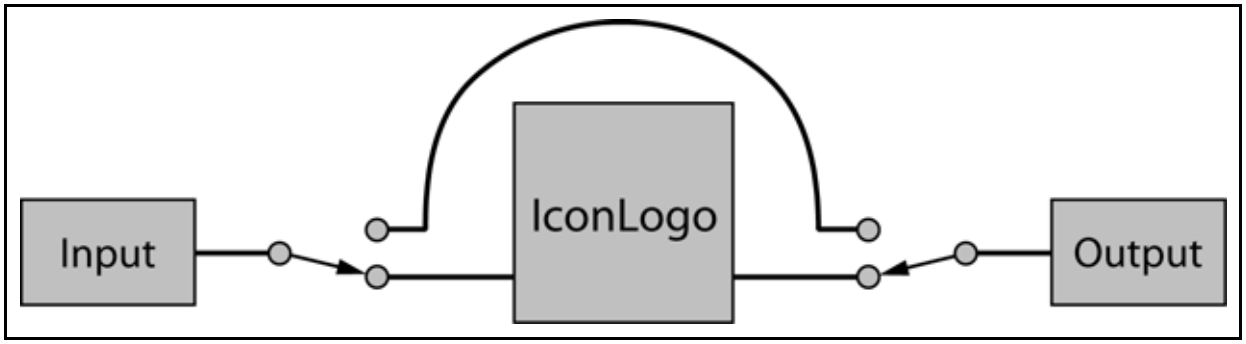


Figure 1-7 One Signal Path — ON State

Setting Relay Bypass Mode

J1 Jumper

Jumper J1 is used to set the relay bypass mode.

- If J1 is set to Non Relay (the default setting), when a power failure takes place the input AES audio signals will be directly routed to the output AES audio ports. If your firmware version is earlier than v.3.2, you *must* set jumper J1 to Non Relay.

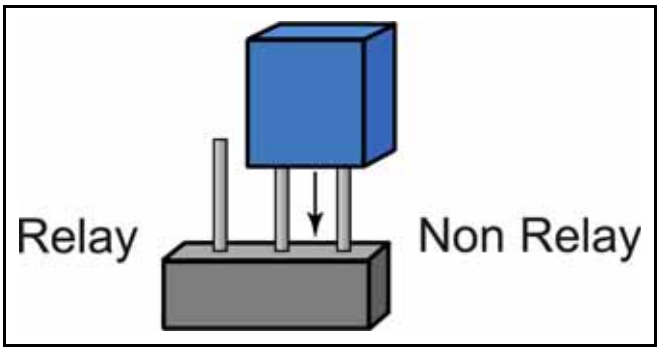


Figure 1-8 J1 Set to Non Relay (Default)

- If J1 is set to Relay, when a power failure takes place, during boot-up, or an internal error, the input AES audio signals will be directly routed to the output AES audio ports. In this mode, GPO 1 is used for relay control. (GPO 1 is always connected to the connectors and terminal blocks.)

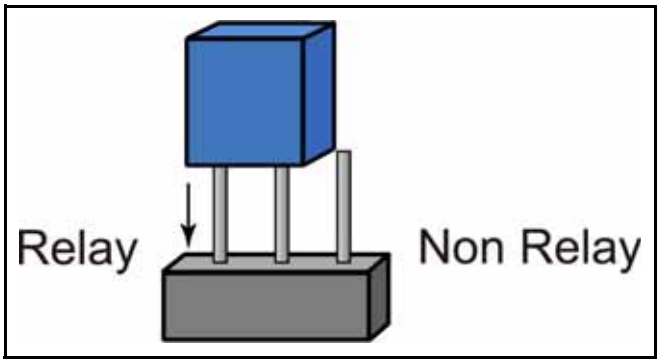


Figure 1-9 J1 Set to Relay

GPO 1

GPO 1 is used for relay bypass mode.

- GPO 1 must be set to the BO Relay Bypass function in order for relay bypass to work. To set the GPO, use either the IconLogo control panel, or the IconLogo SoftPanel to go to the Engineering Menu and select the GP I/O parameter. Follow the instructions on page 117 to set GPO 1 to function #16 BO Relay Bypass.
- See **Table 1-1** on page 13 for GPO 1 terminal connection.

Functional Block Diagrams

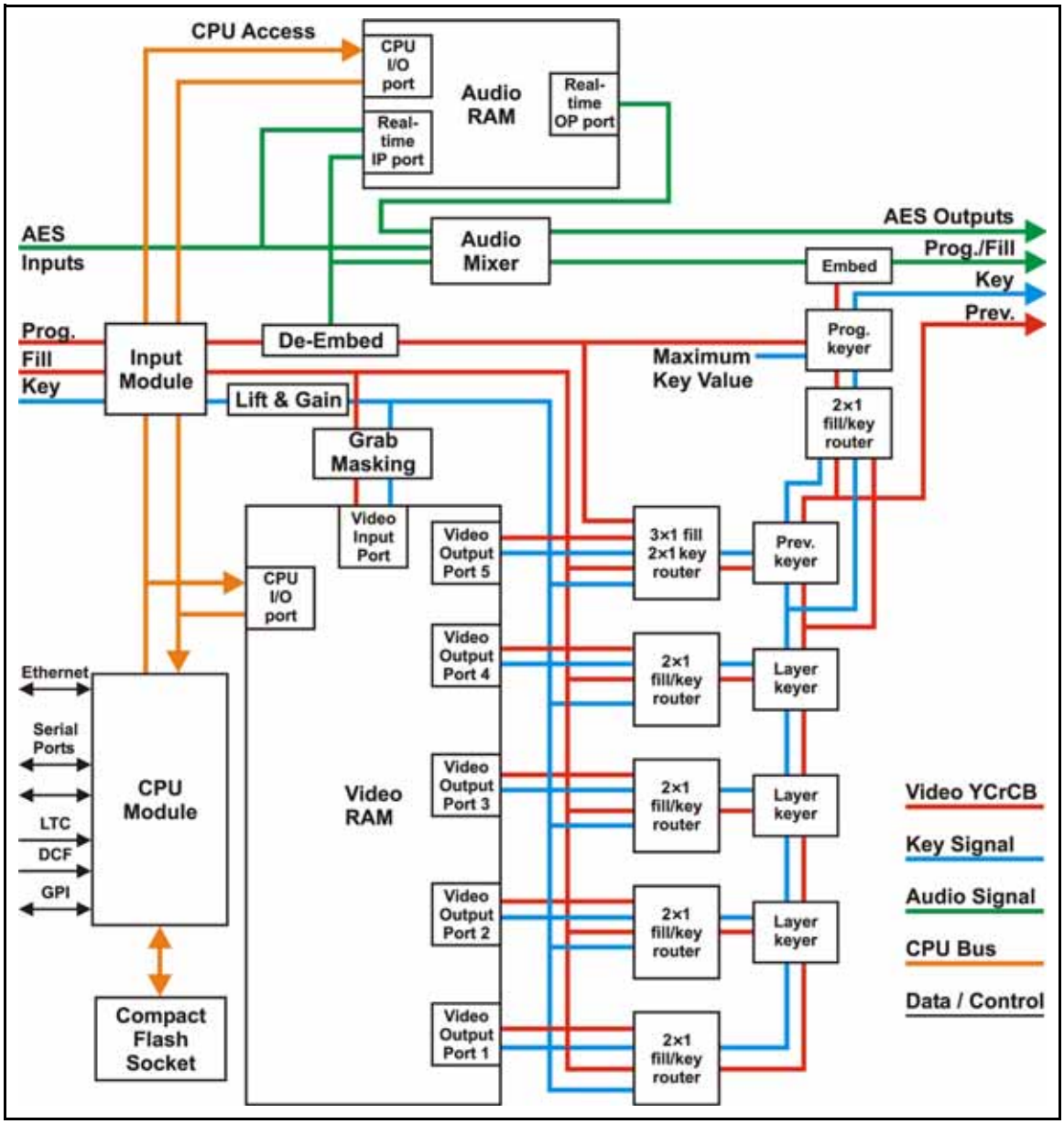


Figure 1-10 Functional Block Diagram of the IconLogo

Circuit Description

The NEO IconLogo consists of two modules: an interface module and main processing module.

- The interface module receives the video inputs and passes the video data and timing information to the main processing module. The interface module then receives processed video from the main processing module and formats the video for output.

  The interface module has a separate line FIFO for each of its inputs (program, external fill, external key), to allow buffering of up to an active line of video and for horizontally timing relative to a external reference.
- The main processing module consists of these building blocks:
  - Microprocessor
  - 100Base-T Ethernet interface
  - Video/audio fast access memory
  - Compact flash interface (hard disk)
  - AES audio inputs and outputs
  - Video keyer
  - Audio mixer

Logos and audio clips are stored on the compact flash device; on power-up the logo information is transferred from the compact flash to the video/audio fast access memory. You can also download logo data directly to the video/audio fast access memory via the 100Base-T Ethernet interface (see ***Logo Storage and Loading*** on page 121).

To generate individual logos, the video information is played out of the video/audio fast access memory for each of the four logo layers and one preview layer.

Video data for layers is keyed onto the program output, and preview video data is keyed onto the preview output. **Figure 1-10** on page 16 shows the signal flow of the IconLogo. There are many options for logo output; for example, a logo may be made of internal fill and key, external fill and key, or a selection of the two.

The audio source for the IconLogo may be from embedded audio in the program input or the AES inputs. The audio mixer will allow an audio logo to be mixed over the audio source, or for the AES input to be mixed over the embedded program input source (such as for voice-over).

The IconLogo may be controlled several ways:

- By a dedicated control panel (MGI-NUC-RCP-XX) via 100Base-T Ethernet
- Via the RS-422 automation port
- Via the GPI interface

2 Installation and Removal

Overview

IconLogo module installation, navigation, configuration, and setup information is now included in the *NEO FR-3901, FR-3903, and FR-3923 Mounting Frames Installation and Operation Manual*. If your current NEO frame manual is Edition A, B, C, or D, you will need to download an updated version from our website to access this information.

CAUTION

Before installation, please read the *NEO Safety and Compliance Manual*. This document contains important information about the safe installation and operation of NEO products.

In this chapter, you can find information on the following topics.

- ***Correcting a Failed Upgrading Procedure*** on page 28
- ***Connecting an IconLogo to an EAS Device*** on page 24
- ***IconLogo System Overview*** on page 21
- ***Installing Modules*** on page 23
- ***Packing List*** on page 20
- ***Removing Modules*** on page 24
- ***Upgrading Module Software using CCS 4.2 (or Later)*** on page 26

Packing List

Table 2-1 IconLogo Packing List

Ordered Product	Content Description
ICONL-RB	■ One front module (which includes the MGI-3903-MB-FM and MGI-3903-IO-FM) ■ One MGI-3903-BM rear/back connector module ■ One D-sub connector for GPI/LTC/TEMP connection ■ One D-sub connector cover ■ One 1 Gb DDR2 module ■ One 4 Gb compact flash module ■ *Imagine Communications Infrastructure and Networking DVD*, which contains software installables and a soft copy of the *Installation and Operation Manual.*

Optional Items

For factory upgrade, the options will be installed onto the module. The standard DDR2 and/or compact flash will be sent separately.

- TT-PROBE Temperature probe
- TT-SHIELD Shield for Temperature probe
- ICONL-BO IconLogo breakout module[1]
- ICONL-DDR2-2048 DDR2 memory module, 2 Gb module (512 megapixel)[2]
- ICONL-CF-8G compact flash (Type 1) upgrade, 8 Gb card
- ICONL-CRAWL IconLogo Text Crawl and Titling
- ICONL-EAS IconLogo EAS, Text Crawl, and Titling
- ICONL-DATA IconLogo ODBC, RSS, and XLM interface options
- ICONL-GUI IconLogo software GUI control panel
- MGI-NUC-RCP-DM MGI NUCLEUS remote control panel, desk-mount[3]
- MGI-NUC-RCP MGI NUCLEUS remote control panel, rack-mount[3]

[1] The ICONL-BO breakout module includes terminal blocks for connecting AES audio inputs and outputs, GPI, GPO, RS232, LTC+/-, and Temperature probe inputs. Audio bypass relays are also included.
[2] Purchase one for a 2Gb upgrade and two for a 4Gb upgrade.
[3] Refer to the *NUCLEUS IconLogo Control Option Configuration and Operation Manual* for information on using the Nucleus desk-mount or rack-mount control panels with IconLogo. The menus in this manual are for the Soft and Legacy Control panels.

IconLogo System Overview

Physical Description

IconLogo consists of a two-board set, which has been designed to operate in any of the NEO system rack-mounted frames. The NEO frame provides IconLogo with power and internal communication with the CCS control and monitoring network, with which IconLogo is fully compliant.

The two IconLogo boards are joined electrically *and* mechanically, and can only be removed from and reinserted into the frame as a single unit. Multiple IconLogo units can operate within the same NEO frame, depending on the number of slots available in the frame (each IconLogo unit requires two adjacent slots).

The main, or lower, board has these components:

- System CPU
- All audio/graphics storage and processing
- A compact flash socket (that contains a removable system disk)

The daughter board sits above the main board and handles all the video I/O and processing through the common rear connector module. The video I/O board and its rear connector module is capable of handling SDI (270 Mbps standard definition) and HD-SDI (1.5 Gbps high definition).

The rear connector module has these components:

- Connections for all external control cables
- AES digital audio inputs and output connections

The IconLogo's remote control panels are connected to the IconLogo unit via a 100Base-T Ethernet network. There is an RJ-45 Ethernet connector on the common back module. This standard network connection also provides IconLogo with network access to PCs with Microsoft Windows operating systems and/or UNIX®[1]-based PCs and network servers.

Video/Audio Inputs and Outputs

The rear connector module on the video I/O board provides all the video I/O for the IconLogo system. **Figure 1-2** on page 10 shows the common rear connector module for the three types of video I/O cards. All have the following connectors:

- **Program Input** – the main on-air program feed onto which logos are inserted
- **Fill**[2] **and Key Inputs** – used for inserting live external keys on air (in place of one logo layer)
- **Reference Input** – a black burst reference or tri-level sync reference for externally locking IconLogo; can also be locked to the program, key, or fill inputs
- **Program/Fill Output**[3] – provides IconLogo's main output in one of two modes:
  - The main on-air program output, onto which logos have been inserted (in Program mode)

[1] "UNIX" is a registered trademark of The Open Group.
[2] External Fill Input should not be premultiplied (or shaped).
[3] In SD and HD, Fill Output is premultiplied (or shaped).

  - The Fill output, which, together with the key output, provide fill and key from IconLogo for keying downstream (in Fill and Key modes)
- **Key Output** – provides a key of all on-air logos, primarily used for downstream keying of IconLogo's output when in Fill and Key modes; can be used in either mode to provide a confidence output for checking logo keys
- **Preview Output** – provides a confidence output, which shows either a preview of the next logo to go to air (keyed over the background) or a preview of logos as they are created and set up
- **Clean Output** – a copy of the program input

Audio is processed independently of the video on IconLogo. It is capable of providing an output, which is the result of mixing audio from two of three sources:

- **Embedded audio** – audio extracted from the Program input
- **AES input** – input on the rear connector module; used for voice-over and audio clip recording or as the program audio source
- **Logo/Clip Audio** – audio derived from imported files, which can be associated with logos and animations, clips, and clocks

The resulting processed audio is re-embedded into the program output and is also provided as a separate AES output. The rear connector module is shown in **Figure 1-2** on page 10.

Remote Control Connections

IconLogo can be remotely controlled from a NUCLEUS™ control panel (with the IconLogo control option) or IconLogo SoftPanel software application for manual on-air control of the system as well as for other off-line functions.

- For details about the NUCLEUS control panel, see the *NUCLEUS IconLogo Option Installation and Operation Manual*.
- For details about the IconLogo SoftPanel software application, see page 31.

IconLogo setup and on-air manual override control are performed using an IconLogo control panel. The panel communicates with the IconLogo module over the 100Base-T Ethernet network via the RJ-45 connector on the rear connector module. Any one panel may select any IconLogo on the network. This way, if manual override is only required infrequently in a multichannel system, only one control panel is required.

IconLogo is provided with control and monitoring (including alarms) over a CCS remote control and monitoring system. This connection to IconLogo is internal to the NEO frame. The frame itself has a single network connector on the rear for CCS control and monitoring access to all boards within.

External inputs for time code (either LTC or DCF) provide synchronization for real-time on-air clocks. Internally-generated time code may also be used.

IconLogo Logos and File System

IconLogo has a removable compact flash card running a standard MS-DOS®[1] compatible file system as its system disk. IconLogo normally operates with the compact flash inserted, although normal operation is not affected if it is removed after power-up. This allows the compact flash to be removed from IconLogo and, using a PCMCIA or USB compact flash adapter, have graphics and audio sample files transferred directly from a PC.

[1] "MS-DOS" is a registered trademark of Microsoft Corporation in the United States and/or other countries.

The IconLogo system configuration files are saved on the compact flash, so it must be in place whenever the system is powered up or when anything on the system is changed. Also, the default location for storage of logo files and the graphics and audio files associated with them is on the compact flash card. Again, the compact flash card must be in place whenever a change is made to any logo (unless your logos and graphics are stored remotely, as described below).

In addition to the removable compact flash, IconLogo has the ability to "see" file systems on networked computers using Microsoft Windows operating systems or UNIX using NFS (Network File System – see page 124). Remote file systems simply appear as new root directories in the IconLogo file menu. Files on remote systems, therefore, may be used in logos in the same way as files on the compact flash file system.

As a further convenience when transferring files onto the compact flash, IconLogo exports its own file system so that other computers can "see" it as if it were a local disk (again using NFS). This allows remote computers to save (or even drag-and-drop from Microsoft Windows Explorer) directly onto IconLogo compact flash over the network.

Installing Modules

All IconLogo modules consist of a two-module set, which has been designed to operate in any of the NEO system rack-mounted frames. **Figure 2-1** shows the two-module set for the IconLogo-MD.

Figure 2-1 IconLogo Two-Module Set

This module requires no specialized installation procedures. See the *NEO FR-3901, FR-3903, and FR-3923 Mounting Frames Installation and Operation Manual* for details about installing NEO modules.

Removing Modules

This module requires no specialized removal procedures. See the *NEO FR-3901, FR-3903, and FR-3923 Mounting Frames Installation and Operation Manual* for details about removing NEO modules.

Connecting an IconLogo to an EAS Device

The federal Emergency Alert System (EAS) enables broadcasters, cable providers, and emergency managers to receive, store, forward, and originate emergency alert messages as required by the Federal Communications Commission. EAS allows broadcast stations, cable systems, participating satellite companies, and emergency managers, and other services to send and receive emergency information quickly and automatically, even if these facilities are unattended. Specially equipped devices decode EAS messages for distribution.

The IconLogo can be connected directly to an EAS encoder/decoder or character generator, thus enabling you to insert emergency notification messages directly into the broadcast stream as a regular scrolling text crawl. It can be used with or without an accompanying audio stream.

An external EAS receiver is required to allow this feature to become operational. For details please contact Customer Service.

Communication Protocols

The IconLogo currently supports three communication protocols employed by EAS devices: TFT[1], Sage[2], and Gorman-Redlich (GR)[3].

Connecting an EAS Device to an IconLogo

The IconLogo should be connected to the EAS device via a 9-pin port using pins 30 and 15 (RS-232 serial) of GPI/LTC/Temperature 44-pin D-sub connector. The port baud rate is 9600. **Table 2-2** shows the cable pinout:

Table 2-2 Connector Cable Pin Assignments

EAS Device Port Pin	Use	GPI/LTC/Temperature Port Pin
2	Rx ← Tx	15
3	Tx → Rx	30
5	Ground	Any available ground pin (see **Figure 1-4** on page 12 for available ground pins)

The optional audio should be connected from the Audio Out connector of the EAS device to audio Channel 1 of the IconLogo using an appropriate analog-to-digital audio converter. For example, the ADC-3981 can be used for this purpose.

Please refer to the appropriate user manuals for further information.

Configuring the EAS Device

For basic configurations and preparations please see the specific EAS device user manual. No additional special settings are needed to communicate with an IconLogo. The standard signal will be taken out from the EAS device's serial port.

Setting up EAS

The following steps are involved in setting up EAS.

1 Create fonts using Content Editor.

See ***Using the Font Utility*** on page 159.

2 Create a Text Crawl.

See ***Configuring a Text Crawl or Text Titling*** on page 107.

[1] "TFT" is a trademark of TFT Inc., San Jose, California.
[2] "Sage" systems are products of Sage Alerting Systems, Rye Brook, New York.
[3] Gorman-Redlich Manufacturing Co., Athens, Ohio.

3 Create a Quick Select logo.

See ***Logo Number*** on page 88.

4 Select **Eng** > **More** > E**AS Logo**, enter the number of the text crawl logo you created (in Step 2) in the **TextLogo** field, and then press **QuickSelect**.

See ***EAS Logos1*** on page 127.

5 Select **Eng** > **More** > **EAS Protocol** and choose the EAS protocol your system uses.

Associating Audio With an EAS Text Crawl

The purpose of the static logo in this procedure is to pad out the audio or text crawl until the end of the longer item is matched, so one portion of the EAS is not cut off the screen prematurely.

1 Set the audio channels you will use with EAS to Logo+Duck.

See ***Aud 1/2, 3/4, 5/6, 7/8 Mode*** on page 76.

2 To create a static audio logo, select **Logo** > **Logo Number** > **Create** > **Static** and then set the **Audio Source** to none.

3 To configure a GPI to key on/off the static logo, select **Eng** > **GPI/GPO** > **GPI.Fall Edge** and then press **Select/Next** until the option reads **Cut 1 on Layer - #3**.

4 Enter the number for the audio logo you created and then press **Logo**.

5 Enter the layer for the logo and then press **Layer**.

6 Press **Exit** > **GPI Setup**, and then press **Select Next** repeatedly, stopping at **Cut off Layer - #7**.

Upgrading Module Software using CCS 4.2 (or Later)

Starting with CCS version 3.5, Pilot and CoPilot are no longer offered as separate programs. A free trial version of CCS Navigator is packaged with each new IconLogo order; after the trial period, the program retains the upgrading capability of the former CoPilot program.

To monitor and control IconLogo modules using CCS Navigator, you must first upgrade your NEO frame resource module software to version 4.0 or higher. In addition, firmware upgrades to the IconLogo module require the use of Navigator 4.2 or higher.

Overview

Software upgrading is a routine procedure that you must perform to install newer versions of software on IconLogo modules. CCS Navigator software application is required for this procedure. Use care to ensure that you upload the correct files to the intended module.

In the unlikely event that the upgrade fails, the module may not respond to controls and will appear to be non-functional. In that event, follow the procedures described in ***Correcting a Failed Upgrading Procedure*** on page 28.

Before beginning the upgrading procedure, ensure that you have written down the IP address of your module. To do this, select the Build mode in CCS software. Right-click on the module, select **Properties**, and then click **Device**. The IP address appears in the second **Device ID** field.

Upgrading Procedure

The upgrading procedure will take approximately 10 minutes. Follow these steps to upgrade the software:

1. Download the most recent upgrade package for your module from our website.
2. Set your CCS Pilot or Navigator software to the Build mode (CoPilot only functions in Build mode).
3. If the affected module has not been discovered, perform the **Discovery** operation, as described in your CCS software application manual or online help, and then save the results.
4. From the **Tools** menu, select **Software Upgrade**.

   The **Software Upgrade** window opens or is brought to the foreground (see **Figure 2-2**).

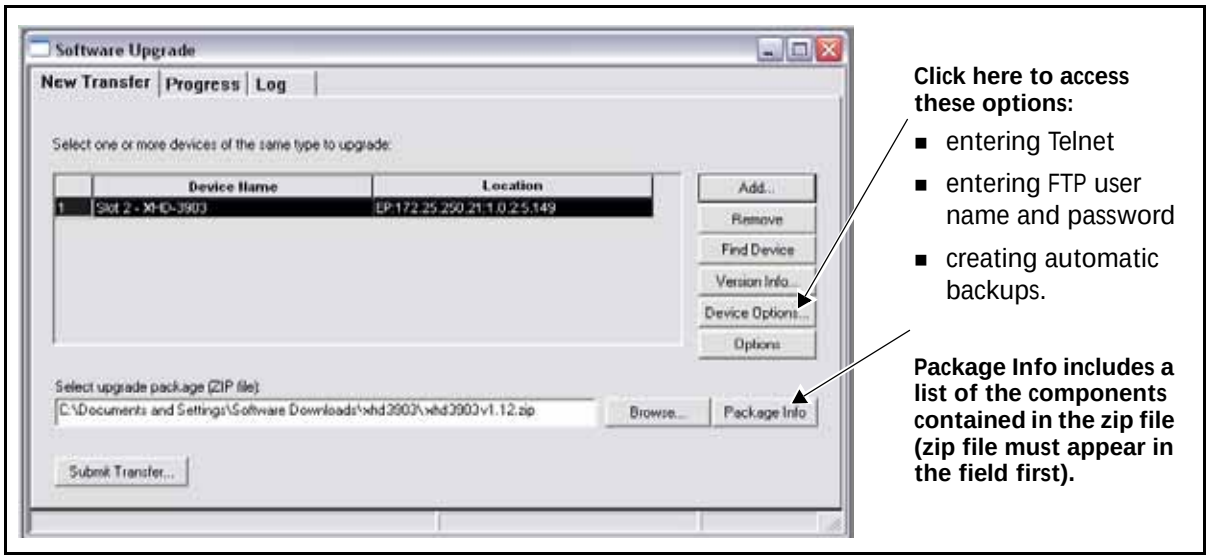


Figure 2-2 Software Upgrade Tool's New Transfer Tab

5. On the **New Transfer** tab, click **Add**.

   The **Device Selection** dialog opens.
6. Select one or more devices, and then click **OK** to close the **Add Device** dialog box.

   Here is some additional information:

   - You can only add one unit from each IP address. Since all items in a frame have the same IP address, you cannot upgrade multiple modules in the same frame at the same time.
   - The selected devices appear in the table on the **New Transfer** tab of the **Software Upgrade** window. This table lists devices that are to receive the same upgrade package.
   - You can highlight the position of each device in the Navigation pane by clicking **Find Device**.

- The **Version Info** and **Device Options...** buttons currently are not supported by the IconLogo.

7 In the **Software Upgrade** window, press **Browse...** to select the software upgrade package (ZIP file) that you want to upload to the module.

A standard **Windows File Selection** dialog box opens.

8 Choose the upgrade ZIP file on a local or network drive, and then click **Open**.

The selected file's path name is displayed beside the **Browse…** button.

9 Click **Submit Transfer...**

A dialog box opens, requesting confirmation that you want to proceed with the request. If you have multiple devices selected, multiple transfer tasks are submitted—one per device.

The extraction process on the ZIP file is handled as part of the upgrade process. You do not need to extract the files yourself.

Although the file name disappears from the screen, the transfer is now underway. You may close the **Software Upgrade** window, continue with other tasks, or switch to the **Progress** tab to view the status of the transfers. The transfer may take several moments.

NOTE

Closing the **Software Upgrade** window does not affect any of the transfer processes that may be running in the background. If you try to log off or exit the CCS software while a transfer is underway, a notification window will alert you that processes are still active and will ask if you want to terminate these processes.

10 Click on the **Log** tab and look at the **Transfer Status** column to ensure that all files have correctly updated.

The module is automatically rebooted after the upgrade procedure.

CAUTION

After the transfer is complete, the module reboots and upgrades itself for several minutes. Do not interrupt this event. When the module is ready, the card-edge Status LEDs lights green, and in CCS Navigator, the status is Network Active.

11 To confirm the correct software version was installed, right click the module in the Navigation pane, select **Configuration**, then **Version**, and then **Software**.

Correcting a Failed Upgrading Procedure

Software upgrades may fail in the event of network interruptions, power failures, or if too much data is uploaded to the IconLogo module.

The failure can be corrected by re-installing the software while in a fail-safe mode, as described in the following pages. Use care to ensure that you upload the correct files to the intended module.

Two general steps are involved in correcting a failed upgrade. These steps are found in the following sections:

1 ***Setting the Module to Fail-Safe Loader Mode*** (below)
2 ***Upgrading the Software in the Boot Folder in Fail-Safe Mode*** on page 29

Setting the Module to Fail-Safe Loader Mode

Follow these steps to set the module to the fail-safe loader mode:

1 Remove the affected module from the NEO frame.

2 Press the **Nav** switch down while simultaneously pressing the **Escape** button.

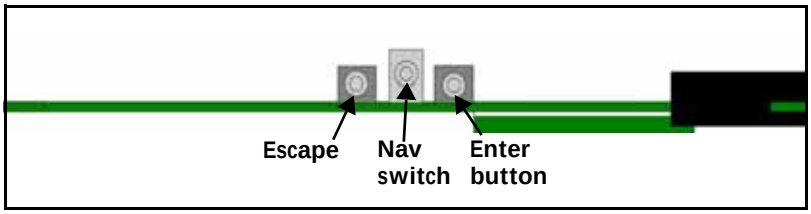


Figure 2-3 Buttons on a Typical Card Edge

3 While still pressing the button and the navigation switch, reinsert the module into the frame and hold for approximately three seconds until the **Status** LED begins "chasing."

If your device has been discovered, you can continue upgrading your device's software, starting with step 4 on page 27. If the device has not been discovered, continue with the procedure described below.

Upgrading the Software in the Boot Folder in Fail-Safe Mode

This is the second stage of the failed upgrading procedure. To successfully complete this upgrade, you must follow these steps in the exact sequence described:

1 Enter Build mode in CCS Pilot or Navigator.

2 In the Navigation pane, drag or copy-and-paste the module's device icon from the **Catalog** folder into your NEO frame.

3 Right-click the device icon, and then select **Properties**.

4 On the **Device** tab of the **Navigation Properties** box, enter the IP address of the frame that holds the module (see below).

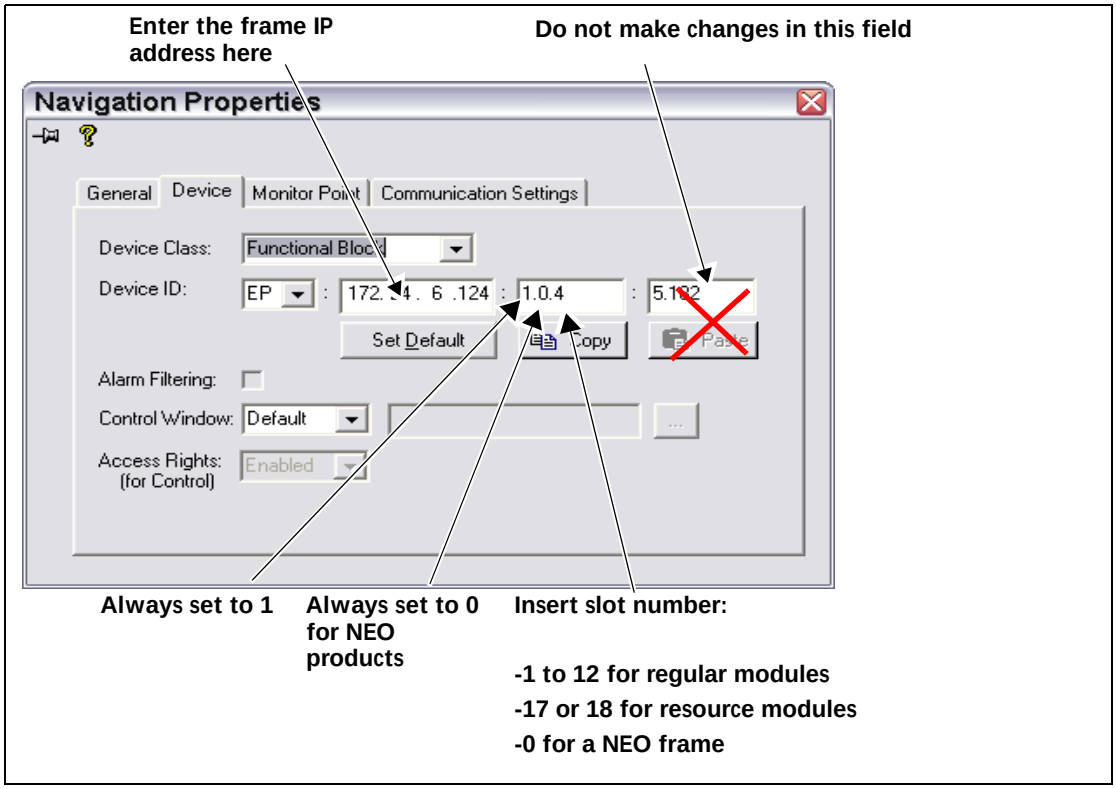


Figure 2-4 Navigation Properties Box

5 In the third field, enter

`1.0.[slotnumber]`

(for example, 1.0.5 would refer to the module in *slot 5* of the frame).

NOTE

Ensure you do not make changes in the *last* field (located above and to the right of the **Set Default** button.)

6 Close the window, and continue upgrading your device's software, starting with step 4 on page 27.

3 IconLogo SoftPanel Software Application

Software Installation

The Imagine Communications documentation DVD includes the following software for use with IconLogo:

- IconLogo Soft Panel

  The soft panel allows for logo management, creation, and parametric changes. Logos can be viewed and selected to layers using the soft panel, but direct transitions are NOT allowed from the IconLogo panel. You can transition between logos using **Key 3** through **6** selections on the IconLogo. See **Appendix B, *IconLogo Software Application***.

If a key layer is on-air, any changes made to that layer are applied instantly.

- Content Editor

  The Content Editor supplies both static and dynamic data for crawls. See **Appendix F, *Content Editor Software Application***.

- LogoCreator

  The LogoCreator application makes it possible for you to create static and animated logos offline. This is the recommended process for logo creation, as logos are pre-rendered and require less time to load. Logos can be loaded directly into both the near-line and on-line storage, ready for use with the IconLogo keys. See **Appendix E, *LogoCreator Software Application***.

System Requirements

The PC you are using to run Icon Soft Tools should meet the following minimum requirements.

- 500-MHz Pentium III processor
- 256-MB SDRAM
- 300-MB free disk space
- 100Base-T network connection

Install the Icon Soft Tools software only on a PC running Windows XP or Windows 2000. The software is incompatible with Windows 95, 98, and NT. Microsoft Internet Explorer minimum version 5.0 is required.

The following additional third-party software is required for Icon Soft Tools :

- Microsoft .NET. You will be prompted as to whether you want to install this application. When installing .NET, you will need to reboot the PC after installing the software. If you already have .NET installed on your PC, do not reinstall it.

Installing the Software

To install the software, follow these steps:

The IconLogo Control Panel software application can control the IconLogo through an external terminal that can be located away from the IconLogo system.

You must install certain required hardware and software before you can install and operate the IconLogo software. See page 144 for details. Once those requirements are met, follow these steps:

1. If an existing version of IconLogo is installed on the PC, uninstall it, and then restart the PC.
2. Close all other applications running on the PC, and then insert the Documentation and Product Resources DVD into the PC DVD-ROM drive.
3. If the DVD does not launch automatically, click it in Windows Explorer.
4. Choose **Software Applications**, and then choose Icon [x], where x is the release version of the software.
5. Double click **AutoRun.exe** if the setup does not start automatically.
6. Click **Icon Series Soft Tools**.
7. Click **Next** on the Welcome screen, and then click Next on the Warning screen (if you have already removed all previous Icon Series software only).
8. Click **IconLogo/IconKey**, and then click **Next**.

   This option installs IconLogo, Content Editor, rand LogoCreator software. (You can customize your software install by clicking **Choose Applications Individually**.)
9. Read and accept the license agreement, and then click **Next**.
10. Click **Next** to start the installation.
11. Click **Finish** when the **Setup Complete** box appears.

Removing Software

1. Go to the Windows Control Panel (**Start>Settings>Control Panel**), and then select **Add/Remove Programs**.
2. Select **IconTools** from the list and follow the instructions provided on screen.

CAUTION

If you remove IconTools, you remove LogoCreator, Content Editor, and IconLogo.

Control Panel Operation

The IconLogo Control Panel GUI has the same functionality as a hardware control panel, but uses a terminal keyboard and mouse instead of pots and soft buttons. (See **Figure 3-1**.)

To select a soft button, left-click on the mouse from the terminal.

To navigate through the menus, use the arrow keys on the keyboard or hold down the left mouse button, and then scroll through the menu list with the mouse.

Figure 3-1 IconLogo Control Panel GUI

See ***IconLogo Operation*** on page 127 for more information about control panel operation.

4 LogoCreator Software Application

Overview

LogoCreator is a Windows-based software application that allows you to create, view, and edit MG2 logo files, which are recognized by your IconLogo hardware. LogoCreator saves all position and image information in the MG2 file. Use LogoCreator to create and save static and animated logos.

LogoCreator also includes a Logo Transfer plug-in option that allows you to access your IconLogo system from your PC. When you install the Logo Transfer plug-in, you can view and transfer logos using a device window on your computer.

Configuring a PC for Best Display

For LogoCreator software to show clearly and appropriately on a PC monitor, set the **Display Properties** for the monitor to 1024×768 resolution.

To configure a PC monitor for best display of LogoCreator software, complete these steps:

1. Click **Start**, point to **Settings**, and click **Control Panel**. This opens the Control Panel.
2. Double-click the **Display** icon to show the **Display Properties** box.
3. Select the **Settings** tab.

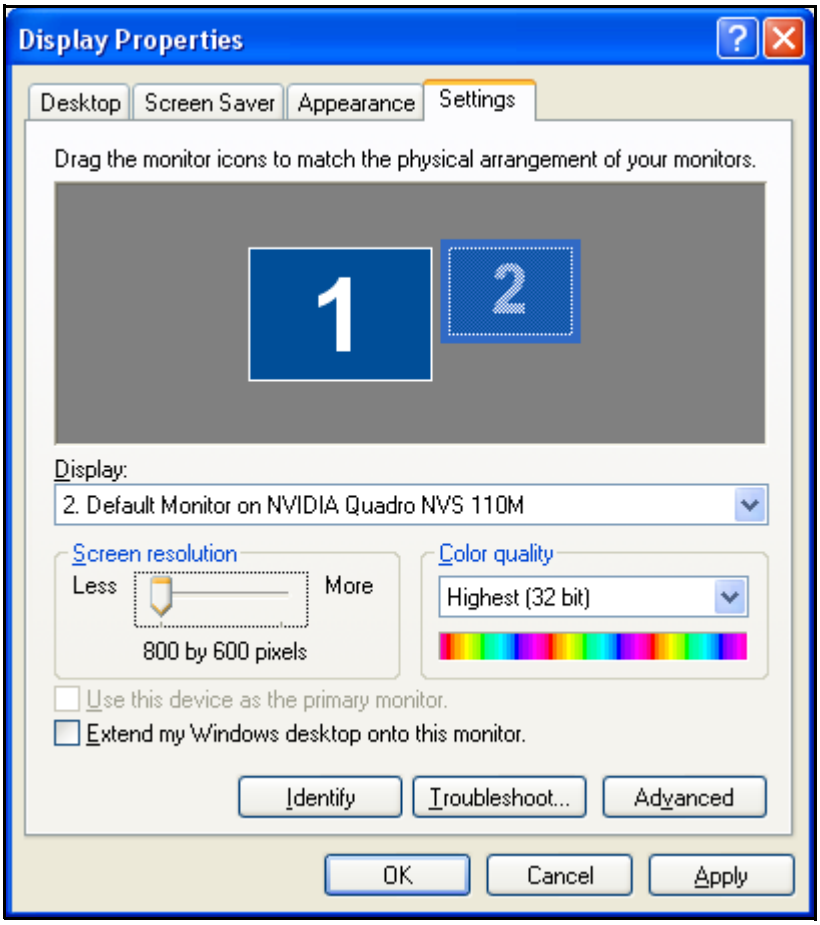


Figure 4-1 Settings Tab of the Display Properties Box

4 In the **Screen resolution** section, use the mouse to drag the pointer right or left between **Less** and **More** until "1024 by 768 pixels" appears under the pointer.

Figure 4-2 Desktop Area Section of the Display Properties Box

5 Click **Advanced**. Make sure that Normal size (96 dpi) font is selected.

6 Click **OK** to close the **Display Properties** box.

Opening the LogoCreator Application

Use one of the following methods to open your LogoCreator application.

- From the Windows **Start** menu, select **All Programs > Harris > LogoCreator > LogoCreator**.
- Double-click on the LogoCreator icon on your desktop.
- Navigate to an existing MG2 file and right-click on the file. Select **Open** from the pop-up menu.

Creating MG2 Logos

LogoCreator allows you to create MG2 files to use with your IconLogo hardware. You can save existing static or animated logos as MG2 files.

Creating a Static MG2 Logo

To create a static MG2 logo, open an existing logo file and then save the logo as an MG2 file. After you save the logo, the logo displays in your LogoCreator workspace.

1 In LogoCreator, open the **Logo Set-Up** dialog.

When you first open LogoCreator, the **Logo Set-Up** dialog opens automatically. If the **Logo Set-Up** dialog is closed, select **File > New** to open the dialog.

Logo Creator - Logo Set-Up
Set up a logo type.
Open an existing file (MG2) to work with and modify for output.
Open...
Create a new logo with positioning for output.
Logo...
Create an animated logo with positioning for output.
Animated...
Close

Figure 4-3 LogoCreator Setup Dialog Box

2 Click the **Logo** button to open the Static Logo dialog.

3 Use the **Logo ID** box to assign the logo to a specific slot on your IconLogo system.

4 Enter a name for the logo in the **Name** box.

5 Click the **Open** button below the **Logo Image Preview** window. The **Open** dialog displays.

6 Select your existing logo file and click the **Open** button to open the logo in the **Static Logo** dialog.

Logo Creator does not support creating a logo via PNG with alpha channel. If you need to use an alpha channel from within a PNG file, convert it to TGA format using a graphic tool such as GIMP or PhotoShop etc.

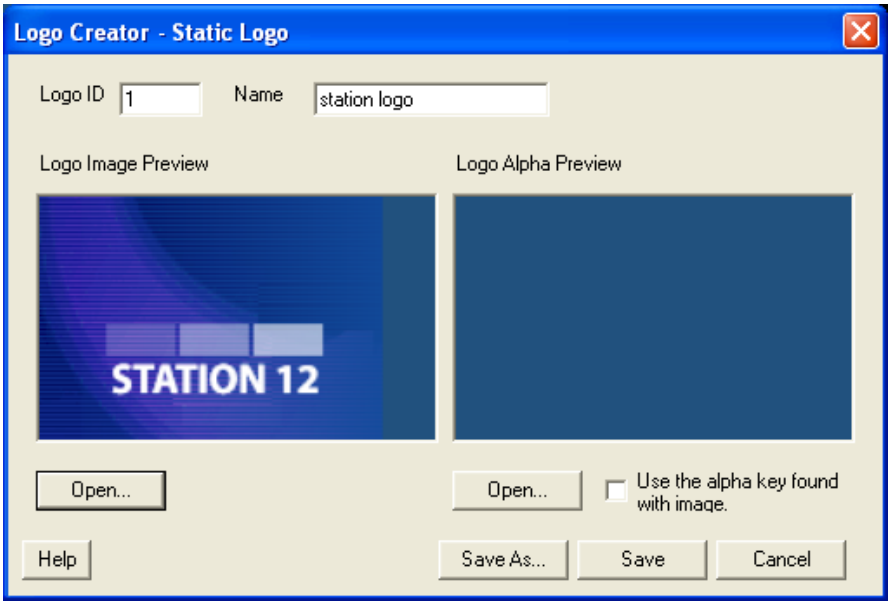


Figure 4-4 Static Logo Dialog Box

- A preview of the composited logo displays in the **Logo Image Preview** area.
- A preview of the image alpha displays in the **Logo Alpha Preview** area if the file contains alpha.

An alpha channel is an 8-bit layer in a graphics file format that is used for expressing translucency (transparency). Typically, you define the alpha channel on a per-object basis. Different parts of an object will have different levels of transparency depending on how much background you want to show through.

7 Select a file to use as the alpha channel for your logo. You must select a file before you can save the logo.

- To use the original image's alpha channel, select the "Use the alpha key found with image" checkbox.
- To use a different image for the alpha channel, clear the "Use the alpha key found with image" checkbox, and then click the **Open** button to select a new file for your alpha channel.

8 Click the **Save** button in the **Static Logo dialog**. The **Save Logo File** dialog opens where you can save your logo as an MG2 file. Once you save the logo as an MG2 file, the logo displays in the LogoCreator workspace.

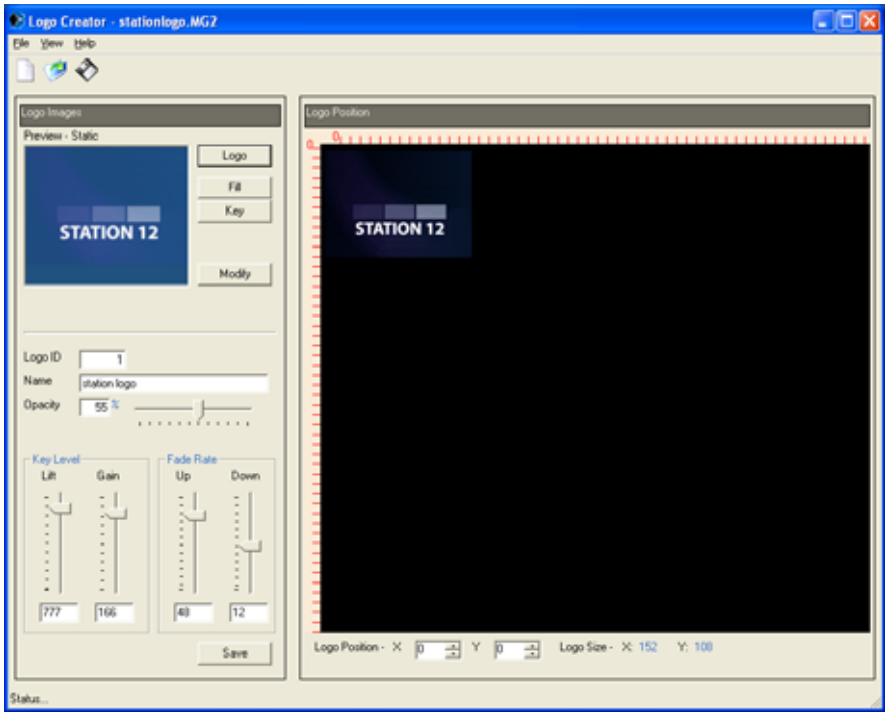


Figure 4-5 LogoCreator Work Space

Creating an Animated MG2 Logo

To create an animated MG2 logo, open an existing animation sequence and then save the animation as an MG2 file. After you save the logo, the logo displays in your LogoCreator workspace.

1 In LogoCreator, open the **Logo Set-Up** dialog.

When you first open LogoCreator, the **Logo Set-Up** dialog opens automatically. If the Logo Set-Up dialog is closed, select **File > New** to open the dialog.

Logo Creator - Logo Set-Up
Set up a logo type.
Open an existing file (MG2) to work with and modify for output.
Open...
Create a new logo with positioning for output.
Logo...
Create an animated logo with positioning for output.
Animated...
Close

Figure 4-6 LogoCreator Setup Dialog Box

2 Click the **Animated** button to open the Animated Logo dialog.

3 Use the **Logo ID** box to assign the logo to a specific slot on your IconLogo system.

4 Enter a name for the logo in the **Name** box.

5 Click the **Open** button below the Logo Image Preview window. The **Open** dialog displays.

6 In the **Open** dialog, select the first file in your animation sequence.

7 Click the **Open** button to open your animation sequence in the **Animated Logo** dialog.

8 Click the **Show Sequence** button to view the animation files. The **Animated Logo** dialog updates to display the individual frames of the animation.

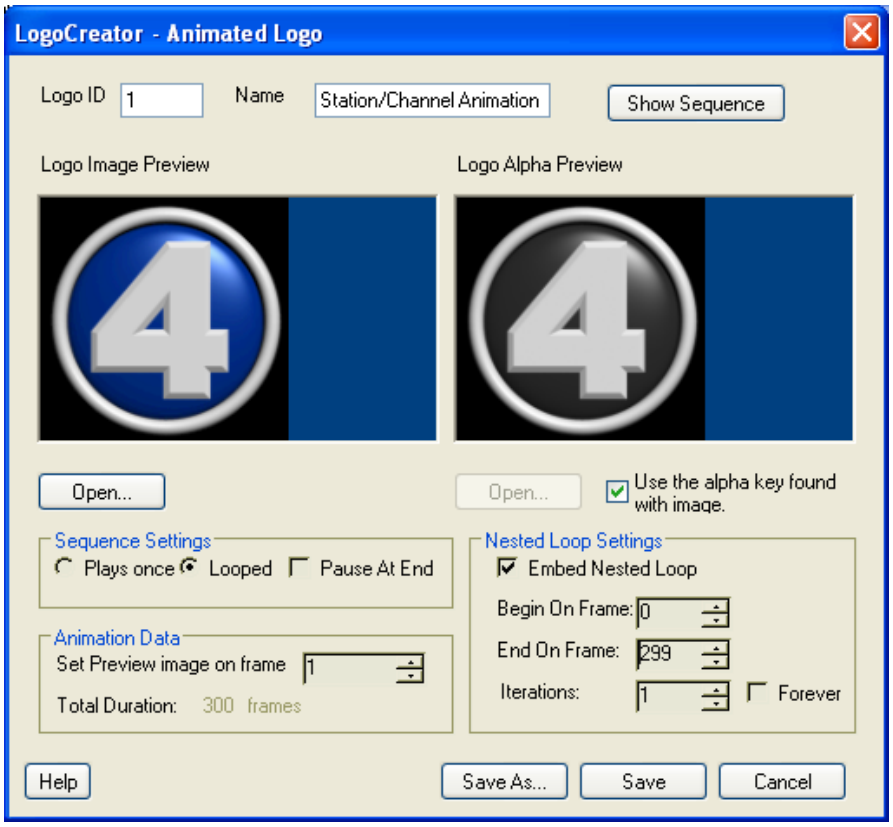


Figure 4-7 Animated Logo Dialog Box

9 Use the horizontal scrollbar to preview your animation frames.

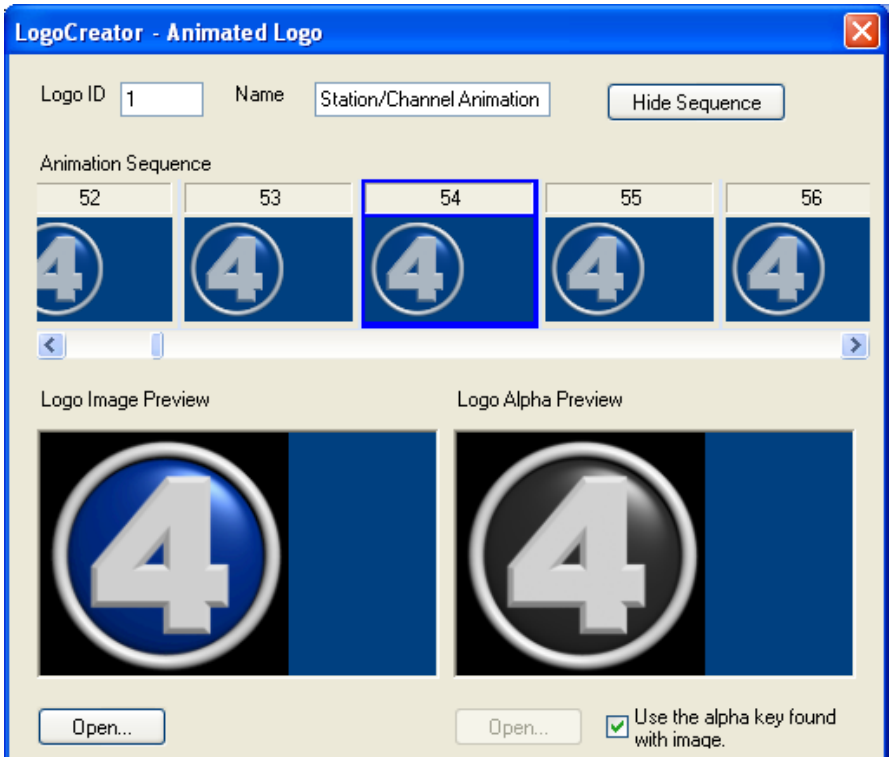


Figure 4-8 Using the Horizontal Scrollbar

10 Select the image thumbnails in the Animation Sequence to preview a specific image in your animation. A preview of the composited image displays in the **Logo Image Preview** area.

11 Select a file to use as the alpha channel for your logo. You must select a file before you can save the logo. (See page 38 for a definition of an alpha channel.)

- To use the original image's alpha channel, select the "Use the alpha key found with image" checkbox.
- To use a different image for the alpha channel, clear the "Use the alpha key found with image" checkbox and then click the Open button to select a new file for your alpha channel.

12 Set the animation loop options. See Table 4-1 for details.

13 Click the **Save** button in the **Animated Logo** dialog. The **Save Logo File** dialog opens where you can save your logo as an MG2 file. Once you save the logo as an MG2 file, the logo displays in the LogoCreator workspace.

Table 4-1 Animation Options

Option	Description
Sequence Settings	Sets the animation playback option. ■ Plays once: Plays the animation once and stops. If you set up a nested loop, it will play for the set number of iterations. ■ Looped: Loops the animation until playback is stopped. If you set up a nested loop, it will play for the set number of iterations, every time the animation loops. ■ Pause At End: Pauses the animation before replaying the loop.

Table 4-1 Animation Options *(Continued)*

Option	Description
Animation Data	Displays animation frame information. ■ Set Preview image on frame: Sets the entered frame as your preview in the LogoCreator workspace. ■ Total Duration: Displays the total number of frames in the animation.
Nested Loop Settings	Allows you to loop a segment of the animation that falls between the start frame and end frame you specify. Example 4-point Animation* Example 3-point Animation* ■ Embed Nested Loop: Activates the nested loop options so you can loop a segment of the animation. ■ Begin On Frame: Sets the first frame of the loop. The frame can be any point in the animation. ■ End On Frame: Sets the last frame of the loop. On output, the segment between the first frame of the nested loop and the last frame of the nested loop will loop. ■ Iterations: Sets the number of time the nested loop plays before finishing the animation. ■ Forever: Sets the animation to loop until playback is stopped.

A 4-point logo is an animated logo that will loop only a portion of itself. The animation sequence contains an introductory animation, an animation loop, and an exit animation. A 3-point logo is similar to a 4-point logo, except that it has no exit portion. It can also be visualized as a 4-point logo where the loop-end point is the same as the animation-end point. See page 100 for more information.

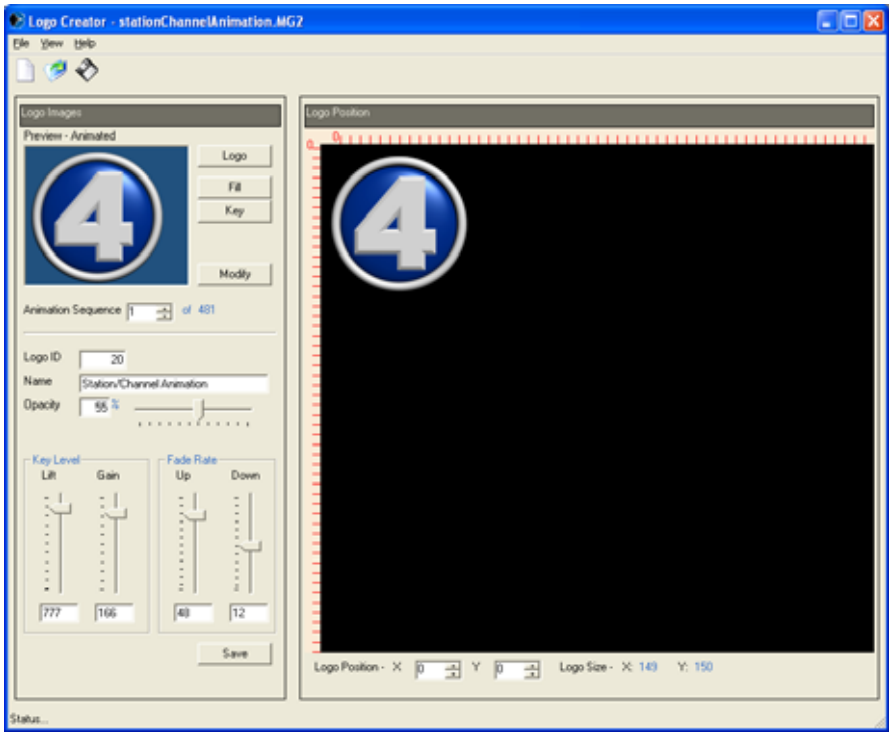


Figure 4-9 Save Logo File Dialog Box

Working in LogoCreator

Once you create an MG2 logo you can open the file in LogoCreator, set the logo position, and modify specific logo attributes. LogoCreator also allows you to adjust the noise and strength of the key signal and apply fade on/off transitions to the logo.

Opening a Logo

Use the following steps to open an existing MG2 logo.

*When you open LogoCreator the **Logo Set-Up** dialog opens automatically. You can click the **Open** button in the **Logo Set-Up** dialog to access the **Open Logo File** dialog.*

1. In LogoCreator, select **File > Open** to open the Open Logo File dialog.
2. In the **Open Logo File** dialog, navigate to and select your MG2 logo file.
3. Click the **Open** button. The MG2 logo displays in the LogoCreator workspace.

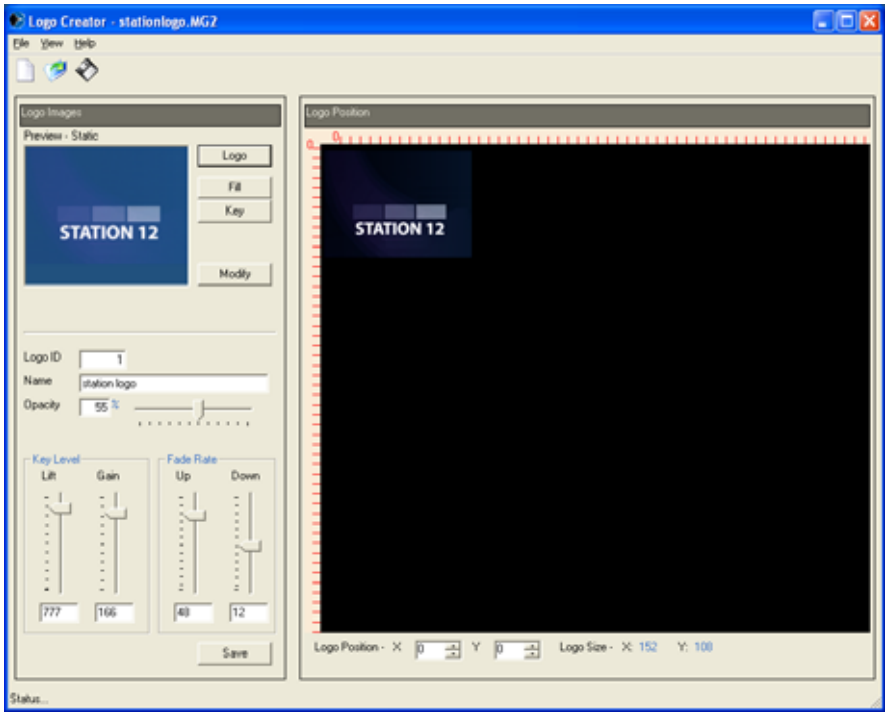


Figure 4-10 Opening a Logo

Previewing a Logo

LogoCreator's preview options allow you to view the composited image, the fill channel, and the key channel. Use the preview buttons in LogoCreator to preview your logo.

- Logo button: Click the **Logo** button to view a preview of the composited logo.

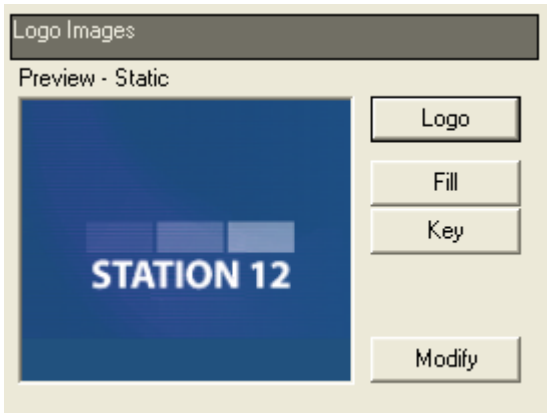


Figure 4-11 Viewing a Composited Logo

- Fill button: Click the **Fill** button to view the fill channel for the logo.
- Key button: Click the **Key** button to view the alpha channel for the logo. (See page 38 for a definition of an alpha channel.)
- Animation Sequence: For animated logos, enter a number in the **Animation Sequence** field to preview the animation frame.

Figure 4-12 Viewing an Animation Sequence

Modifying Logo Attributes

The **Modify** button allows you to adjust the logo attributes you defined when you created the logo.

1. Click the Modify button to open the Logo dialog, where you defined the logo attributes.
2. Use the options to adjust the logo properties.
3. Click Save to save the changes and return to the LogoCreator workspace.

For details on the available options in the Logo dialog, see the topics in "Creating MG2 Logos" on page 37.

Positioning a Logo

Once you open your MG2 logo, you can set the onscreen position for the logo in the LogoCreator workspace.

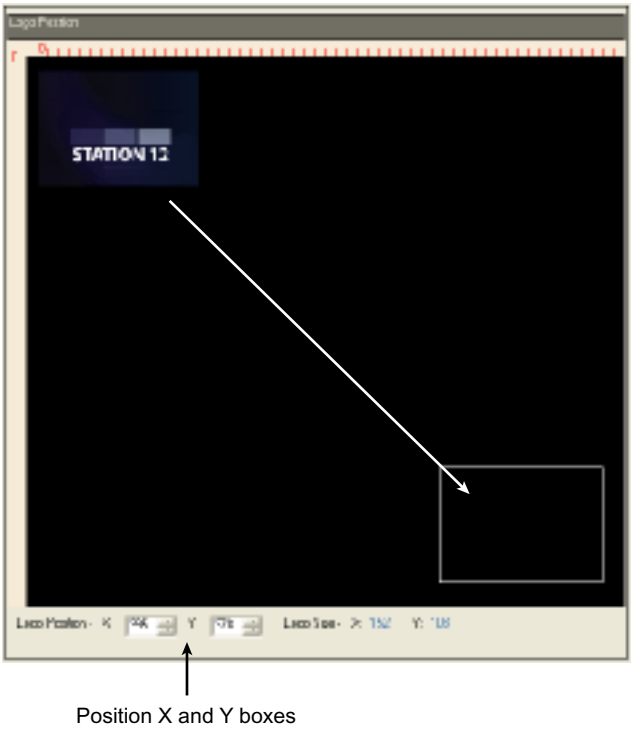


Figure 4-13 Positioning a Logo

Use one of the following methods to position your logo.

- Drag the logo to a new position.
- Use the **Logo Position X** and **Logo Position Y** boxes below the workspace to place your logo in an exact position. You can enter positive or negative values.

  The X value moves the logo horizontally and the Y value moves the logo vertically by the set number of pixels.

Changing the Logo ID

The Logo ID assigns the logo to a specific slot on your IconLogo system.

1. Enter a new slot number in the Logo ID box to change the slot.
2. Click the **Save** button at the bottom of the LogoCreator window to save the change.

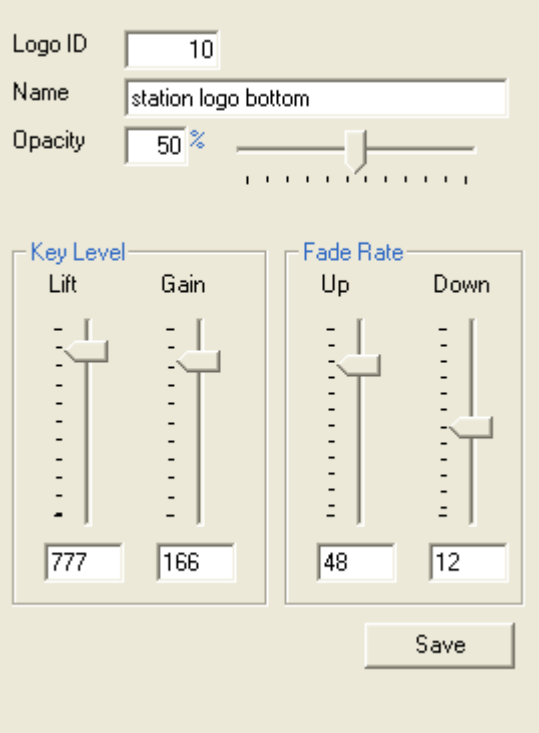


Figure 4-14 Changing a Logo ID

Changing the Logo Name

The Logo name sets the name for the MG2 file.

1. Enter a new name in the Name box.
2. Click the Save button at the bottom of the LogoCreator window to save the change.

Adjusting the Logo Opacity

The Opacity sets the overall transparency level for the composited logo.

1. Use the Opacity field or slider to adjust the logo transparency.
   - 100% sets the logo as completely opaque.
   - 0% sets the logo as completely transparent.
2. Click the Save button at the bottom of the LogoCreator window to save the change.

Adjusting the Key Level

The Key Level options allow you to adjust the noise and the strength of the key signal. Use the Lift to adjust the noise and use the Gain to adjust the strength.

- Lift: Use the Lift slider or enter a value in the Lift box to adjust the noise level of the key signal. Raising the Lift decreases the noise, which also decreases the signal slightly.

  Lift values range from 0 to 876.
- Gain: Use the Gain slider or enter a value in the Gain box to adjust the strength of the key signal. Raising the Gain increases the strength of the signal.

  Gain values range from 0 - 200%.

Adjusting the Fade Rate

The Fade Rate options allow you to adjust the transition duration for fading logos on or off. Use the Up and Down options to adjust the fade rate.

- Up: Use the Up slider or enter a value in the Up box to adjust the transition duration for fading the logo on air.

  Up values range from 1 - 59 seconds.
- Down: Use the Down slider or enter a value in the Down box to adjust the transition duration for fading the logo off air.

  Down values range from 1 - 24 frames.

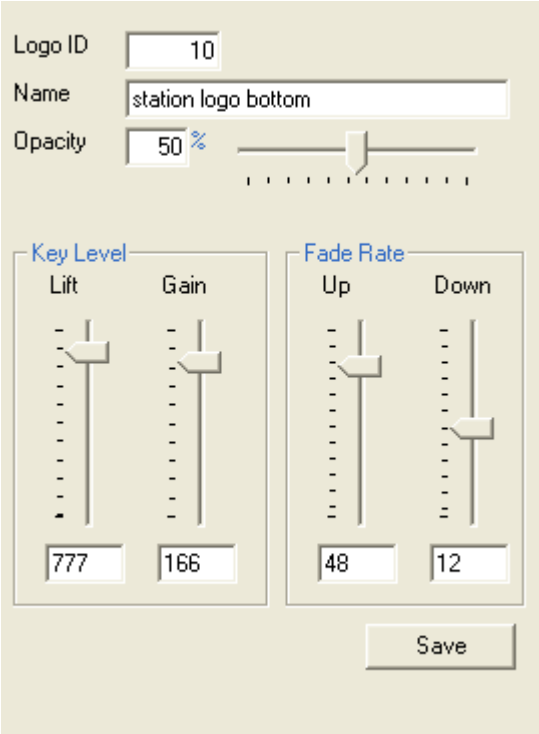


Figure 4-15 Adjusting the Fade Rate

Connecting to an IconLogo System

The Logo Transfer Plug In utility allows you to transfer logos from a PC to an IconLogo system using a device folder that displays as a standard Windows folder on your PC.

The device folder uses the IconLogo system's username, password, and IP address to establish a connection from your PC to your IconLogo system. When you open the IconLogo device folder, the current logos, logo IDs, logo names, and logo types contained on the IconLogo system display in the folder.

Creating a New Device Folder

Use the following steps to create a new device folder in Windows that connects to your IconLogo system.

1 From your Windows desktop, open Windows Explorer or My Computer.

2 Navigate to a location on your computer where you want to create the new device folder.

3 In the folder window, select **File > New > New Device**. The **New Device Properties** dialog opens.

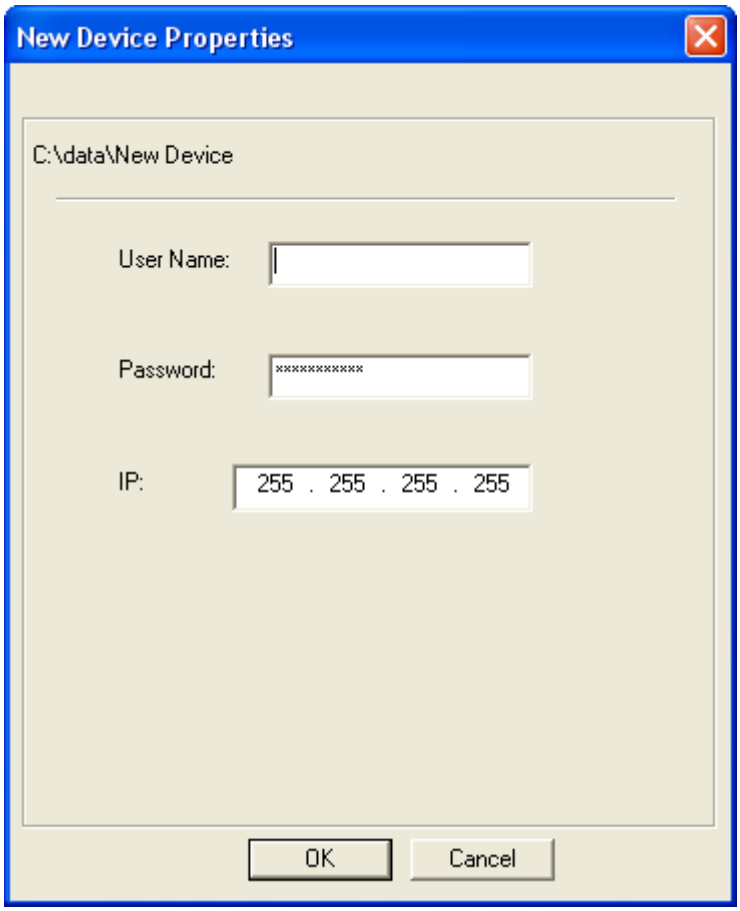


Figure 4-16 New Device Properties Dialog Box

4 Enter the following information in the **New Device Properties** dialog:

- Username: Enter a valid username for the IconLogo system.
- Password: Enter a valid password for the specified username.
- IP: Enter the IP address of the IconLogo system.

5 Click **OK** in the **New Device Properties** dialog to establish a connection to the IconLogo system and to create the new device folder.

6 Double-click on the new device folder to view the current logos on the IconLogo system.

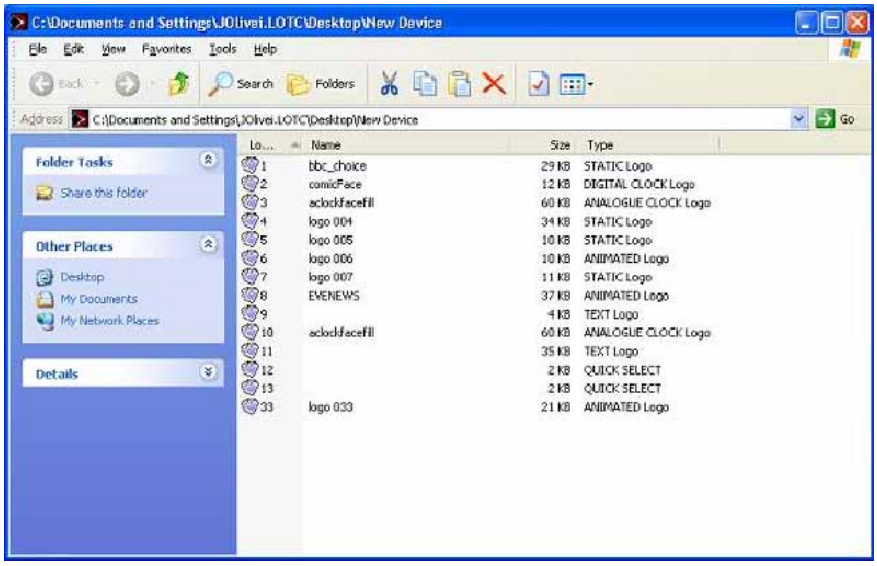

C:\Documents and Settings\JOlivei.LOTC\Desktop\New Device
File Edit View Favorites Tools Help
Search Folders
Address C:\Documents and Settings\JOlivei.LOTC\Desktop\New Device
Go
Folder Tasks
Share this folder
Other Places
Desktop
My Documents
My Network Places
Details
Lo... Name Size Type
1 bbc_choice 29 KB STATIC Logo
2 comicFace 12 KB DIGITAL CLOCK Logo
3 aclockfacefill 60 KB ANALOGUE CLOCK Logo
4 logo 004 34 KB STATIC Logo
5 logo 005 10 KB STATIC Logo
6 logo 006 10 KB ANIMATED Logo
7 logo 007 11 KB STATIC Logo
8 EVENEWS 37 KB ANIMATED Logo
9 4 KB TEXT Logo
10 aclockfacefill 60 KB ANALOGUE CLOCK Logo
11 35 KB TEXT Logo
12 2 KB QUICK SELECT
13 2 KB QUICK SELECT
33 logo 033 21 KB ANIMATED Logo

Figure 4-17 Viewing Current Logos

Transferring MG2 Logos to IconLogo

After you create a new device folder that connects to your IconLogo system, you can transfer MG2 logos from your PC to IconLogo. To transfer logos you can select the MG2 files in Windows and drag them to your device folder.

You can only transfer MG2 logos to the IconLogo system. If you want to transfer a different logo format, save the file as an MG2 file in LogoCreator first, and then transfer the logo.

1. Use Windows Explorer or My Computer to navigate to your device folder, and then open the folder. The current IconLogo system logos display in the window.
2. In a new instance of Windows Explorer or My Computer, navigate to the MG2 logo your want to assign to your IconLogo system.
3. Select the MG2 logo and drag it to your device folder. The Load To window displays.
4. Use the following options in the Load To window to set the transfer instructions.

Table 4-2 Load To Window Options

Option	Description
Near Line Storage options	Transfers a logo to the IconLogo system and writes the logo to the removable media selected in the Near Line Storage list
On-Line checkbox	Loads a logo to the IconLogo system's RAM (random access memory) once you transfer the logo; clear the checkbox if you do not want to load the logo immediately
Logo ID options	Assigns a logo to a slot on the IconLogo system ■ Use Logo ID: Assigns the logo to the slot set as the Logo ID. You can set the Logo ID in LogoCreator ■ Use Free Slot ID: Assigns the logo to the first available free slot on the IconLogo system

5. Click **OK** to transfer the logo with the applied settings.

5 Content Editor Software Application

Overview

Content Editor is a Windows-based software application that can access text from various sources for display as Text Crawl or Text Titling logos in the IconLogo system.

For information on Content Editor Operation and using the font utility, please refer to the *IconLogo Content Editor User Guide*. A PDF version of this manual is included on the MGI-3903 Soft Tools CD.

Content Editor Operation

Refer to the *IconLogo Content Editor User Guide* included on the *Imagine Communications Infrastructure and Networking Documentation DVD*.

Using the Font Utility

Refer to the *IconLogo Content Editor User Guide* included on the *Imagine Communications Infrastructure and Networking Documentation DVD*.

6 Logo Creation

What Makes a Logo?

In its most basic form, a logo consists of a single fill source and a single key source. The *fill* is the picture or image you wish to overlay onto the program output. The *key* is the cutout or shape of the desired logo, which may or may not be the same shape and size as the fill.

For more complex logo forms (clocks and animations), several fill and key sources are required. The key defines the shape of the logo (shown rendered over a matte background in Figure 6-2), cutting out any areas that are shown black in the key.

Figure 6-1 Fill Source and Key Source

Figure 6-2 Resulting Logo Rendered over Matte Background

A logo may be one of the following basic types:

- **Static logo** – a stationary graphic
- **Animated logo** – multiple graphics files comprising a sequence that forms a moving logo
- **Analog clock** – sweeping hands moving over a fixed clock face
- **Digital clock** – changing digits on a fixed background with or without temperature
- **Quick Select** – logo item that defines a combo; composed of up to four logos, one on each layer
- **Text Crawl** – single line of text that moves from right to left
- **Text Titling** – multi-line static text

For each of these the fill source can be one of the following:

- A graphics file in one of the formats supported (see page 73)
- An internally generated matte color
- An external fill from the External Fill input of IconLogo (static logos only)
- None (the logo is audio only)

The key source can be one of the following:

- A graphics file in one of the formats supported
- The alpha (or key) channel of the fill file currently being used where the graphics format supports it (e.g., MGI and Quantel PaintBox formats)
- An internally generated, soft-edged, bounding-rectangle for the entire fill source; softness is limited to a single line and pixel on each edge of the bounding rectangle to prevent high-frequency ringing effects
- A Self key – producing a key from the luminance of the fill source
- An external key from the external key input of IconLogo
- None (the logo is audio only)

Using the IconLogo Soft Panel to Create Logos

IconLogo creates logos by loading graphics files in their raw format directly into the system's on-line storage. This means that creation of a logo can be as simple and as quick as finding the desired file using the system's File menu and then pressing a single button. Any repositioning and changing of other logo attributes can be done at any time – live from the control panel or control panel GUI. Changing a logo, therefore, can be as simple as taking an existing logo and changing the source file (or even replacing the old file with a new one).

Because of the simplicity with which logos can be created, modified, and deleted, the creation side of the IconLogo can be locked with a key code (which may be changed). This code, entered in the Engineering menu, consists of a numeric value in the range from 1 to 999999. The key code locking mechanism can be permanently disabled. For best results, leave it enabled and only give the code to operators who need Write access. For full details of the operation of the key code locking, refer to "Set-Up Modify" on page 92.

Navigating the Control Panel Menus

*Wrapping may be enabled through the **Menu Wrap** parameter described in* **Set-Up Menu Page** *(see page 90) so that the last parameter on the Page wraps onto the first.*

Most pages consist of a list of parameters, which have been grouped together (where possible) into logical sections. You can access each parameter by using the soft pots, as follows:

- The top soft pot, scrolling clockwise, moves horizontally through the parameters on the page and wraps onto the row below when on the last parameter on any row. When scrolling counter-clockwise, it does the reverse, wrapping onto previous row.
- The bottom soft pot acts similarly, but moves through the list vertically only and will not wrap onto the next/previous column having reached the last/first item on the page.

As each parameter is selected, it is highlighted in the list and soft button labels change to reflect the options for setting the parameter.

When an adjustable parameter is selected (by pushing the lower soft pot), the soft pots may then be used to adjust the parameters. When there are two parameters, the upper soft pot will adjust the first parameter and the lower soft pot will adjust the second parameter. When there are three parameters, the soft buttons may be used to select which parameters are adjusted by the soft pots. Adjustable parameters (usually preceded by a "#") may be set to their default values by double clicking the soft button for that parameter.

Most parameters have an option selection window that pops up to enable fast access to and soft pot control of its various options.

When using the IconLogo soft panel, use the arrow keys on the PC keyboard to navigate through the menu lists.

To use the **Options** *selection windows, follow these steps:*

1. Press and release the bottom soft pot. The **Options** window appears (*see* **Figure 6-3**).
2. Rotate the bottom soft pot to select the required option.
3. Press the bottom soft pot button again to confirm your selection.

To use the **Control Panel** *GUI, follow these steps:*

1. Right click on the mouse to display the **Options** window (*see* **Figure 6-3**).
2. Use the arrow keys to navigate through the options list.
3. Right-click on the mouse to confirm your selection.

Figure 6-3 Options Window

Figure 6-4 Logo Menu with New Static Logo

Soft Buttons

There are four basic types of buttons in the Logo menu:

- Numerical parameter entry (normally preceded by the # symbol); e.g., **# Opacity**
- Option selections; e.g., **Normal Invert**
- Submenu of more soft boxes; these are followed or preceded by an ellipsis ("..."), depending or whether they go to a new selection or return from a previous one; e.g., **Copy/Clear...**
- Link to another menu followed by an ellipsis ("..."); e.g., **Fill File...**, the link to the file menu for selecting a Fill File

When using the IconLogo soft panel, use the mouse to select the soft buttons.

Navigating the Logo Menu

You can enter the Logo Menu by selecting the **Logo** menu button. The Logo menu allows you to create and delete logos and to view and update logo details.

If your system does not have any logos, the menu will look like **Figure 6-5** on page 57. If there are no logos, you will need to create a logo before you are able to use the other features in this menu. Refer to the **# Create** button (page 58).

Figure 6-5 Logo Menu with No Logos Available

If logos already exist in your system, the menu will look similar to **Figure 6-6**.

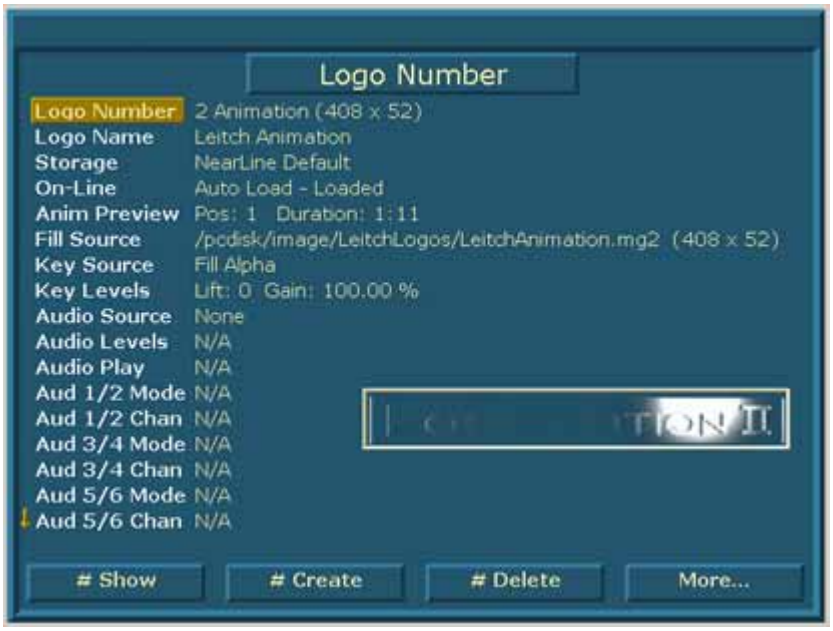


Figure 6-6 Logo Menu showing a Static Logo

If a logo has more parameters than can be displayed on one page, the page scrolls to reveal more parameters.

Use the Logo menu to change and display the logo parameters for a single logo. The logo being displayed can be changed several different ways:

- Enter a logo number, then press the Logo menu button (i.e. direct selection).
- Press the # **Show** soft button if the top menu item is selected.
- Scroll through the list of on-line logos.

To select the parameter to be changed, use the bottom soft pot.

Logo Number

Indicates the logo slot, type, size and on-air/preview status (if applicable) of the logo. The following selections are available:

- **# Show** displays the entire logo list.
  - **# Show** returns to the logo menu.
  - **Unload/Load** will unload or load the logo from/to DDR memory.
  - **Storage** changes to the Storage List menu. See "Logo Storage" on page 86 for details.
- **# Create** will create a new logo. The next available logo number will be automatically selected. *To manually assign a logo number*, enter the logo number using the keypad before selecting **# Create**. You will be presented with a choice of different types of logos to create.
  - **Static** is a stationary graphic.
  - **Animation** shows multiple graphics files comprising a sequence that forms a moving logo.
  - **Digital clock** shows changing digits on a fixed background with or without temperature.
  - **More...**
    - **Analog Clock** shows sweeping hands moving over a fixed clock face.
    - **Text Crawl** shows text with configurable crawling speed and selectable fonts.
    - **Quick Select** is a virtual logo that combines up to 4 logos on each layer of a single logo.
    - **...More**
      - **Text Title** shows multi-line static text.
      - **Cancel** returns to the main logo menu.
      - **...Exit** returns to the main create menu list.
- **# Delete**
  - **...Erase** removes both the logo file and the graphics files from compact flash.
  - **...Cancel** returns to the previous menu.
  - **...Unload** will unload the logo from DDR memory.
  - **...Delete** removes only the logo file from compact flash.
- **More...**
  - **# Show** displays the entire logo list.
  - **Move** allows you to change the logo number of the selected logo within the logo list.
    - **# Copy** will create a copy of the selected logo. *To do this*, first enter the new logo number on the keypad on the right, then press this soft button to copy the logo.
    - **Cancel** returns to the previous menu.
    - **# Renumber** is used to renumber the selected logo. *To do this*, first enter the new logo number on the keypad on the right, then press this softbound to change the logo number.
  - **# Backup** not currently available.
- **Unload/Load** unloads or loads the selected logo from/to DDR memory.
- **...Exit** goes back to the previous menu.

Logo Name

When a logo is created, it takes its name from the fill file used. If no fill source is used, then the key file name is used. The name given to the logo may be changed if required. The following selections are available:

- **Change...** selects an input area for typing in the new name and gives the following selections:
  - **As Before** puts the existing name in the input area.
  - **Clear** clears any characters typed in the input area
  - **...Cancel** goes back to the previous menu
  - **...Enter** selects the characters present in the input area if nothing was entered then the name reverts back to the Fill or Key file name.
- **Clear** selects the logo name from the Fill or Key file name, removing any created name.

Storage

This selection indicates the storage grouping for the selected logo. The following selection is available:

- **# Storage** displays the storage select menu. See "Logo Storage" on page 86 for details.

On-Line

This selection indicates whether the logo is automatically loaded or manually loaded to the DDR memory on startup. It also indicates whether the logo is currently loaded or unloaded.

- **Automatic** - logo is loaded to the DDR memory automatically at startup.
- **Manual** - logo has to be manually loaded to the DDR memory.

When "Manual" is selected for the On-Line parameter, On-Air and Preview logos will still be loaded to Air/Preview if the "Restore" option is selected in the Engineering menu.

Anim Preview

This selection indicates the number of frames the animation has. For a static logo, the status indicates "Static."

Fill Source

The fill source is the main source of graphical information in a logo. It defines the video content of the logo that will be seen on screen and normally defines its size as well.[1]

To select the logo fill source, scroll down to the Fill Source selection on the Logo menu. The menu will look like the one shown in **Figure 6-7**.

Figure 6-7 Logo Menu Selecting New Fill Source

There are three choices for selecting a fill source, as shown by the first three soft buttons. (The fourth selects a way to copy information between fill and key sources.) The process involved in selecting each of these sources is described separately.

- **Fill File...** selects the File menu from which you select a file.
- **Ext. Fill**[2] uses the external fill input as the fill source.
- **More...** selects another set of Fill source selections. Options are as follows:
  - **Matte** uses an internal matte color generator as the fill source.

    Matte color may be used with any non-internally generated key source to fill the key shape with a single matte color.

    Adjust Matte allows adjustment of the matte parameters.
    - **# Luma** requires you to enter a value for the luminance.
    - **# Sat** requires you to enter a value for the saturation.
    - **# Hue** requires you to enter a value for the hue.
  - Transparent sets the fill of a clock face to be transparent.
  - Exit... returns to the main Fill Source selection.
- **Copy/Clear...** selects a new set of soft button options that allow copying and swapping of sources between fill and key. These options are as follows:
  - **Clear** clears the current fill selection.
  - **Swap** swaps fill and key sources.
  - **Copy Key File** copies the key file selection to be the fill source as well.

1. This item is not applicable to Text Crawl or Text Titling logos.
2.

- **Exit…** returns to the main Fill Source selection.

When Fill file is selected from the Logo menu, the menu changes automatically to the Pick Fill submenu. You will be presented with a selection of files and a set of soft buttons that enable you to find, view, and select the Fill file (see **Figure 6-8**).

Figure 6-8 Picking a Fill File

A full explanation of navigating through the directory structure and different file systems in the File menu is presented in "Navigating the File Menu" on page 87, but for the purpose of selecting a Fill file, we will assume that the file you require is in the directory that the File menu was last looking at.

To select a file at the **Pick Fill** *submenu, follow these steps:*

1. Use the top soft pot to skip the highlighted file selection backwards and forwards one file at a time and/or use the bottom soft pot to skip up and down one column at a time.

   (To abandon the search for the fill file and return to the Logo menu, press the **Exit** soft button.)

2. When you find the desired Fill file, press the **View File…** soft button. The menu will change to show a preview of the image in the file (if of a usable format) and all the available information about the file. See **Figure 6-9** for an example.
3. You may use the soft pots to slowly browse through the next/previous file in the directory or, you may press the **Exit** soft button to return to the Pick Fill submenu.
4. If the file is the one required for the logo, press the **Select** soft button. The system will return to the Logo menu, and the selected Fill file and its full path will be shown in the Fill Source selection.

Figure 6-9 Viewing a Fill File

Most logos will be derived from a Fill file, so when a file is selected as the Fill source for a new logo, IconLogo looks for alpha information in the file from which to derive a key. Failing this, it simply assigns a box key (or soft-edged bounding rectangle) so that the whole of the fill source is visible on screen.

Key Source

The key source associated with a logo determines how much of the logo's fill source will appear over the main program video. The key source is the primary source of shape and transparency information for the logo. The quality of the key determines the quality of the overlay for use in channel idents, where picture information needs to be seen through the graphic. It also determines the quality of the feathering (or *anti-aliasing*[1]) on the edges to provide apparently smooth transitions between background program video and graphics.[2]

The simple example in Figure 6-1 on page 53 shows a fill source, an associated key source; the resulting logo (see Figure 6-2 on page 53) would display as a logo over a background. Notice that where the key is black (0%) there is no foreground logo visible, and where the key is white (100%) there is no background visible. All other levels produce a proportional mix between background image and logo fill. Each logo can take its key source from a number of internally and externally generated sources. The most commonly used will be the key file, normally produced by the graphic artist at the same time as the fill source. Some file formats allow storage of both fill and key source, or *alpha channel*[3], for the file.

There are six key sources for IconLogo logo elements. These are picked from one of two Key Source soft button selections of the Logo menu. The first selection shows the following items:

- **Key File…** selects the File menu from which you can pick a key file.
- **Ext. Key** selects the external key input as the key source.
  In SD and HD IconLogo, External Fill and Key may be selected separately.
- **More…** selects another set of key source selections.
  - **…Box** selects a soft edged bounding rectangle for the fill source.
  - **…Self** derives a key from the luminance content of the fill source.
  - **…Fill Alpha** takes the key from the alpha channel of the fill file (if it has one).
  - **…Exit** returns to the main **Key Source** soft button selection.
- **Copy/Clear…** selects a new set of soft button options which allow copying and swapping of sources between fill and key. These options are as follows:
  - **Clear** clears the current key selection.
  - **Swap** swaps fill and key sources.
  - **Copy Fill File** copies the fill file selection over to be the key source as well.
  - **Exit…** returns to the main **Key Source** soft button selection.

A description of each of the key sources follows, along with an explanation of how to select them from the main Key Source selection of the Logo menu.

1. *Anti-aliasing* is a software technique for diminishing "jaggies" (stairstep-like lines that should be smooth). Anti-aliasing reduces the prominence of jaggies by surrounding the stairsteps with intermediate shades of color. Antialiasing is sometimes called *oversampling*.
(Copyright 2003, Jupitermedia. All rights reserved. Reprinted with permission from http://www.internet.com.)
2. This item is not applicable to Text Crawl or Text Titling logos.
3. A *filter* is an effect that can be applied to a bitmapped image. Only data that matches a defined pattern is allowed to pass through the filter. An *alpha channel* filter selectively includes or excludes certain values. Typically, you wouldn't define an alpha channel on a pixel-by-pixel basis, but rather per object. Different parts of the object would have different levels of transparency depending on how much you wanted the background to show through. This allows you to create rectangular objects that appear as if they are irregular in shape — you define the rectangular edges as transparent so that the background shows through. (Copyright 2003, Jupitermedia. All rights reserved. Reprinted with permission from http://www.internet.com.)

When **Key File** is selected from the Logo menu, the menu changes automatically to the **Pick Key** submenu of the **File** menu. Here you will see a selection of files and a set of navigation soft buttons that enable you to find, view, and select the **Key** file (see **Figure 6-10**).

Figure 6-10 Picking a Key File

A full explanation of navigating through the directory structure and different file systems in the File menu is presented in **Navigating the File Menu** (page 87), but for the purpose of selecting a key file, we will assume that the file you require is in the directory that the File menu was last looking at.

To select a file in the **Pick Key** *submenu, follow these steps:*

1. Use the top soft pot to skip the highlighted file selection backwards and forwards one file at a time and/or use the bottom soft pot to skip up and down one column at a time.

   To abandon the search for the key file and return to the Logo menu, press the **Exit** soft button.

2. When you have found the required key file, press the **View File...** soft button. The menu will change to show a preview of the image in the file (if of a usable format) and all the available information about the file (*see* **Figure 6-11** for an example).
3. Use the soft pots to browse through the next/previous file in the directory; or, press the **Exit** soft button to return to the **Pick Key** submenu.
4. If the file is the one required for the logo, press the **Select** soft button. The system will return to the Logo menu; the selected key file and its full path will be shown in the Key Source selection.

Figure 6-11 Viewing a Key File

As a logo may consist of a key source filled with an internally generated matte color, whenever a key file is selected on a logo that does not have an assigned fill source, the matte source is automatically selected for the fill source. Where the logo already has a fill source assigned, the fill source remains unchanged.

Static logos can use the live external key input to IconLogo as the key source. ***To select External Key,*** press the **Ext. Key** soft button.

External Fill and Key may be selected separately for SD and IconLogo. This allows (for example) the selection of an external key source with the internally generated matte color as the fill source.

The box key is an internally generated rectangular box that exactly fits around the selected fill source. In a fill file, the box generated is the same size as the fill source, but with anti-aliased or softened edges to prevent ringing where bright colors may be used in the fill graphic.

Where box is selected for the key source for an external fill, the fill source is taken to be the whole video image, and so the box consists of the whole of the screen (but without soft edges).

To select the box key source, follow these steps:

1. Select the **More...** soft button.
2. Select the **...Box** soft button. The menu will return to the main soft button selection.

Whenever Self Key is selected, the Matte Key mode is selected automatically, as this is the only mode that normally works with self keys. See "What Makes a Logo?" on page 53 for more details.

Some logo sources (normally containing luminance information only) are designed to be both key and fill source for the logo. These can be keyed by selecting the **More...** soft button from the Key Source selection, then selecting the **...Self** soft button.

With **Self** key selected, the key source is derived from the luminance content of the Fill source, which must be a Fill file.

Some graphic file formats are designed to contain the fill and key information in the alpha channel.[1] The file formats that may contain readable alpha channels are

- MGI – the previous generation IconLogo file format generated by LogoCreator
- SGI – Silicon Graphics Image format
- TGA – TrueVision Targa file format
- VPB – Quantel Video PaintBox image format

Each of the above formats can support, but does not necessarily contain, alpha information. The Fill Alpha selection will only work when a fill file exists which contains valid alpha information.

To select alpha fill, follow these steps:

1. Select the **More...** soft button from the Key Source selection.
2. Select the **...Fill Alpha** soft button.

To delete a logo from the Logo Menu, select "Logo Number" (the top item), then press the **# Delete** soft button.

Key Levels

This selection allows the key to be adjusted for lift and gain. *To change the value*, use the keypad to enter the new value, then select the appropriate soft button to make the change.

- **# Key Lift** - Lift 0 to –876 (Default 0)
- **# Key Gain** - Gain 0 to 800% (Default 100%)[2]

Audio Source

The audio system with IconLogo is completely independent of the video system. Any logo may have an audio clip or source associated with it. Conversely, a logo may consist of an audio source only, just an audio clip derived from a file, or just the selection of a voice-over from the external AES audio input.

Either way, the selection of audio source is similar to the selection for fill and key sources. Select "Audio Source" on the Logo menu, then select one of the following source options from the soft buttons:

- **Audio File...** selects the File menu from which you select an audio file.
- **AES Voice Over** selects the AES 1/2 input as the audio source.

When an audio source is selected, two more logo attributes ("Audio Levels" and "Audio Play") become active on the Logo menu. Without an audio source these simply show "N/A" (not applicable) and cannot be changed. A full explanation of these extra audio attributes is given in the next section.

Only one audio logo at a time is able to play. If more than one audio logo is playing, the upper layer will have priority over the lower layer (that is, layer 1 has priority over layer 2). Also, if an audio logo on a higher layer is playing while an audio logo is started on a lower layer, then the lower layer audio will not start and thus will never be heard.

1. See page 63 for a definition of an alpha channel.
2. This item is not available for analog for External Key/Fill.

To select an audio file as the audio source, press the **Audio File…** soft button from the audio source selection in the Logo menu. The menu will change automatically to the Pick Audio File submenu in the File menu. Here you will be presented with a selection of files and a set of navigation soft buttons that will enable you to find, view, and select the audio source file (see **Figure 6-12**).

Figure 6-12. Picking an Audio File

A full explanation of navigating through the directory structure and different file systems in the File menu is presented in **Navigating the File Menu** (page 87), but for the purpose of selecting an audio file, we will assume that the file you require is in the directory that the File menu was last looking at.

To select a file in the "Pick Audio File" submenu, follow these steps:

1 Use the top soft pot to skip the highlighted file selection backwards and forwards one file at a time and/or use the bottom soft pot to skip up and down one column at a time.

(To abandon the search for the audio file and return to the Logo menu, press the **Exit** soft button.)

Audio sample rate must be 48000 Hz.

2 When you have found the required audio file, press the **View Details…** soft button. The menu will change to show all the available information about the file. An example is shown in **Figure 6-13**.

Figure 6-13. Viewing an Audio File

You may use the soft pots to slowly browse through the next/previous file in the directory, or you may press the **Exit** soft button to return to the Pick Audio File submenu.

3 If the file is the one required for the logo, press the **Select** soft button. The system will return to the Logo menu and the selected audio file and its full path will be shown in the Audio Source selection.

The audio clip will play in one of several modes according to "Audio Play" mode, which becomes available in the Logo menu whenever an audio file source is selected.

The ratio of logo audio level to program level may be set for each individual logo using the "Audio Levels" selection of the Logo menu, which becomes active when the audio source is selected.

IconLogo features a full two input, four-channel audio mixer, which is capable of combining the audio sources from program input, audio file, or the AES input. This enables IconLogo to mix logo audio from files onto the program, or to mix the AES input over the program to provide a "voice-over" facility. When the AES audio source is selected, the AES audio input is mixed over the program continually while the logo is on air. The ratio of AES logo level to program level may be set for each individual logo using the "Audio Levels" selection of the Logo menu, which becomes active when the audio source is selected.

With **AES Voice-Over** selected, the AES input is permanently mixed over the Program audio; consequently, the Audio Play mode selection remains inactive and shows "N/A."

To select AES Voiceover, select the **AES Voice Over** soft button from the Audio Source selection in the Logo menu.

Audio Levels

This selection allows the levels for the audio clip to be adjusted. ***To change the value***, use the keypad to enter the new value, then select the appropriate soft button to make the change.

- **# Logo Level** sets the level at which the audio clip will play out. It is adjustable from 0% to 100% (default 100%).
- **# Duck Level** sets the level that the main program will be reduced to while the audio clip is playing. It is adjustable from 0% to 100% (default 0% no reduction in level).

Audio Play

This selection selects how an audio clip will play.

- **Disabled** never plays.
- **Play Button** plays when the logo play button is pressed.
- **Take Button** plays when the logo is put on air or when associated animation starts playing.
- **# Repeat** repeats at the time interval entered.

Aud 1/2, 3/4, 5/6, 7/8 Chan

This selection selects which channel(s) of the audio pair will have audio inserted. This selection will affect both **Duck Only** and **Logo+Duck** audio modes (see page 69), but will not have any effect if the channel pair is set to Unity

- Choose the **Both** selection to insert audio onto both the left and right audio channels. This is the default setting.
- Choose **Left Only** to insert audio onto the left audio channel only.
- Choose **Right Only** to insert audio onto the right audio channel only.

Aud 1/2, 3/4, 5/6, 7/8 Mode

For each pair of audio channels in the system, these four menu items select which channels will have the logo audio mixed over the top of them. They also allow audio to pass unaltered through the system (the unity selection) so that compressed audio can pass through the system.

These selections override the settings for Channel 1/2, 3/4, 5/6, 7/8 in the Engineering Menu. For each pair of channels, choose one of the following selections:

- Choose the **Unity** selection to pass audio through the system without any processing (used for compressed channels). Unity channels will neither be ducked or have logo audio mixed with them.
- Choose the **Logo+Duck** selection to duck the master audio source on these channels and mix logo audio over the top while logo audio playout is taking place.
- Choose the **Duck Only** selection to reduce the level of master audio during logo audio playout without mixing the logo audio with the master audio.
- Choose the **Use Default** selection to use the settings for the menu items Channel 1/2, 3/4, 5/6, 7/8 in the Engineering Menu.

Display

This selection selects how the logo is displayed on the control panel.[1]

- **Logo** displays logo as it would appear on air.
- **Fill** displays just the fill source.
- **Key** displays just the key source.

Key Mode

This selection selects how the logo is keyed.[1]

- **Normal** indicates the selected key is uninverted.
- **Inverted** indicates the selected key is inverted.
- **Key Mode** indicates the selected key is keyed to the fill source.
- **Matte Mode** indicates the selected key is matted to the fill source.

Position

This selection selects the position the logo will take on the screen.[1] The position relates to the top left hand side of the logo's bounding rectangle. *To change the value*, use the keypad to enter the new value, then select the appropriate soft button to make the change.

*Double-click the numeric entry soft buttons such as **#X** to return to the default values. Most defaults are set up in the Engineering menu (see* **Navigating the Engineering Menu** *page 90).*

- **# X** accepts the horizontal pixel position entered into the number pad.
- **# Y** accepts the vertical pixel position entered into the number pad.
- **Presets...**
  - **Horizontal**
    - **Left** sets the horizontal position to the far left of the screen.
    - **Centre** sets the horizontal position to be in the center of the screen.
    - **Right** sets the horizontal position to the far right of the screen.
    - **Exit** returns to the Logo menu.
  - **Vertical**
    - **Top** sets the vertical position of the logo to the top of the screen.
    - **Centre** sets the vertical position of the logo to the center of the screen.
    - **Bottom** sets the vertical position of the logo to the bottom of the screen.
    - **Exit** returns to the Logo menu.
  - **File Default** uses the default position information from the source file used in the logo if it is present (only certain graphics file formats can contain position information).
- **Exit** returns to the Logo menu.

You can use the soft pots to select the position of the logo by pressing the bottom soft pot. You can then use the soft pots to adjust the X and Y values. Pushing the lower soft pot again will exit this mode.

Opacity

This selection selects the opacity of the logo. *To change the value*, use the keypad to enter the new value, then select the soft button to make the change.

- **# Opacity** shows the opacity range 0 – 100%, where 0 will be invisible and 100% will be fully opaque.

1. This item is not applicable to Text Crawl or Text Titling logos.

Fade Rates

This selection sets the fade duration for when a logo is faded up and faded down. Entry may be either in frames or time code. The TC button will allow the user to toggle the entry between the two before selection. If the duration is entered as a time of 1.5, then this will represent 1 second and 5 frames. ***To change the value***, use the keypad to enter the new value, then select the soft button to make the change.

- **# Fade up** indicates the duration of logo fade up.
- **# Fade down** indicates the duration of logo fade down.

The fade rate will also affect an audio logo.

Next Logo

This selection chooses a logo to follow this logo (see "Logo Sequences" on page 140).

- **# Next Logo** selects the logo number entered.
- **Clear** clears the current next logo.
- **Goto Next** takes the Logo menu to the next logo in the sequence.

Off/Air Action

This selection selects what happens to this particular logo once it goes off-air.

- **None** indicates that there is no action.

Source Num

This selection selects the automation Aux bus source select number (range from 1 to 16). *To change the source*, use the keypad to enter the new source, then select the soft button to make the change.

- **# Source** changes the source select number.
- **Clear** clears the current source select number.

Fill Offset

This selection offsets the fill file position relative to the key, such as when the two files are of different sizes. It may also be used if a fill file is larger than the screen resolution to center the image.[1]

- When the fill is larger than the key only negative numbers are accepted.
- When the fill is smaller than the key only positive numbers are accepted.

To change the value, use the keypad to enter the new value, then select the soft button to make the change.

- **# Offset X** changes the X offset.
- **# Offset Y** changes the Y offset.

Animation Logos

The fill and key source fields for animations differ from those for static logos, as they must specify a source of multiple images. This normally means specifying either multiple files or a file that contains multiple images.

If you specify multiple image files, they must be in the same directory, be of the same size and type, and have an ascending numeric sequence as part of their name. The numeric part of the file name must have the same number of digits.

For example, the following sequence specifies a 240 frame animation in the Targa format:

- myAnim0001.tga
- myAnim0002.tga
- myAnim0003.tga
- myAnim0004.tga
- myAnim0005.tga
- myAnim0006.tga
- myAnim0238.tga
- myAnim0239.tga
- myAnim0240.tga

When selecting a file sequence, select the first file in the sequence as the fill or key source. IconLogo will look for all other files in the directory that form part of the same numeric sequence.

Some graphics file formats contain multiple images. These may be selected as the fill or key source for animations. The graphics file formats supported that may contain multiple images for animations are as follows:

- MGI – the previous generation IconLogo file format generated by LogoWin
- VPB – Quantel Video PaintBox image format

The method for selecting the fill and key sources for animations is the same as for static logos. When selecting one of the multiple image file formats (described in **Fill Source** or **Key Source**) as the source for animation fill, the File menu will show the number of frames contained in the file.

1. This item is not applicable to Text Crawl or Text Titling logos.

Anim Preview

The following menu items will only be available for logos with animation.

This selection indicates which frame of the animation is currently displayed and the duration of the entire animation.

- **Play/Stop** will play the animation if it is stopped or stop the animation if it is being played.
- **# Goto Frame** - will take you to a specified frame. To go to a particular frame of the animation, enter the frame number on the keypad and select this soft button.
- **< Prev Frame** will return you to the previous frame. It will not wrap around if the current frame is the first frame.
- **Next Frame>** will go to the next frame. It will not wrap around if the current frame is the last frame.

Cue Action

This selection selects how the animation starts when put on air.

- **Cue** indicates the animation will come on air cued to the first frame but not run.
- **Run** indicates the animation will come on air running.
- **Fade…Run** indicates the animation will fade up and then run.
- **# Delay** indicates the animation will come on air cued and will run after the delay period.

Wait Action

This selection selects how the animation will behave at the end of the animation sequence

- **None** indicates animation executes the selected “end action” immediately.
- **Wait Take** stops at the last frame of the animation. Pressing the play button will re-start the sequence.
- **# Delay** waits at the last frame of the animation for the selected delay period before executing the selected end action.

End Action

This selection selects how the animation behaves after the wait action.

- **Stop** stops at the last frame of the animation sequence.
- **Recue** recues the animation to the first frame of the sequence and waits.
- **Replay** continues the animation from the first frame of the sequence.
- **More…**
- **Fade Down** stops at the last frame of the animation and fades the logo down.
- **Clear Logo** takes the logo off air.
- **Next Logo** selects the next logo (if set-up) and puts it on air.
- **More** returns to the previous menu.

Anim. Rate

This selection selects the speed of the animation, where a value of “2” would indicate 2 video frames duration for playing each animation cell.

Loop Start, End, and Repeat

*Enabling the LogoCreator software application **Embed Nested Loop** check box will allow 3- or 4-point logo parameters to be entered. If this selection is not enabled, the resulting MG2 file will operate like a regular animated logo.*

These selections allow you to set up 3- or 4-point looping, animated logos.

- A 4-point logo is an animated logo that will loop only a portion of itself. The animation sequence contains an introductory animation, an animation loop, and an exit animation. This sequence will be presented as a single animated logo that defines a starting and ending point for the loop.

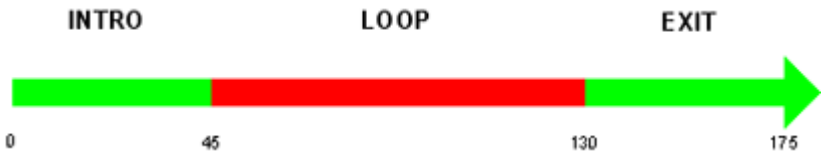


Figure 6-14 Four-Point Animation Logo Model

- A 3-point logo is similar to a 4-point logo, except that it has no exit portion. (It can also be visualized as a 4-point logo where the loop-end point is the same as the animation-end point.)

Figure 6-15 Three-Point Animation Logo Model

Loop Start

This selection allows you to set the frame at which the introductory animation sequence ends and the animation loop begins.

Loop End

This selection allows you to set the frame at which the animation loop sequence ends and the exit loop begins. For a 3-point logo, the **Loop End** parameter needs to be set to the same value as the last frame of the entire animation.

Loop Repeat

This selection allows you to determine the number of times the embedded loop portion will run before finishing the animation. Setting the Loop Repeat parameter value to “1” will force the looping animated logo behave the same as a regular animated logo.

Analog Clock Logos

An analog clock[1] in IconLogo requires graphics for the clock face and each of the hands (in the 12 o'clock position). These are specified the same way as for a static logo. The logo menu for an analog clock is shown in **Figure 6-16**.

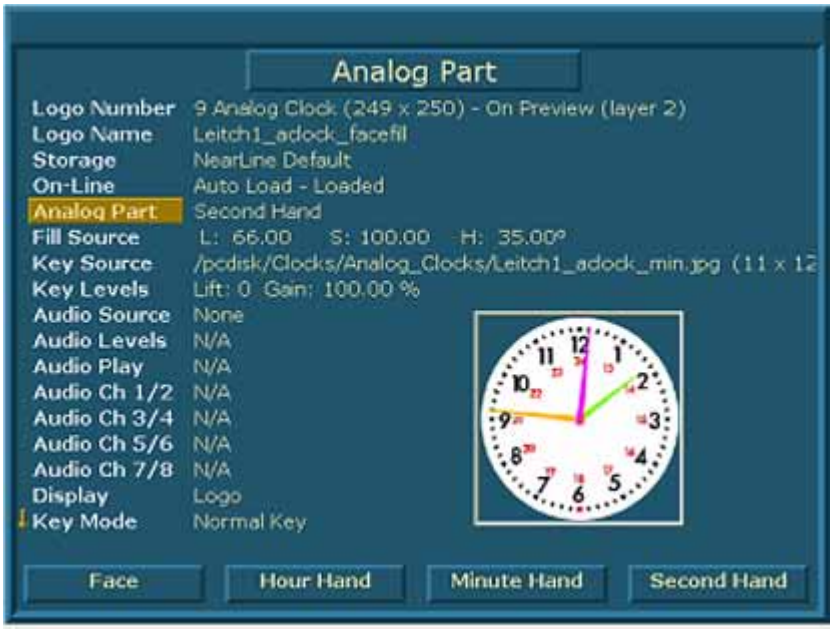

Analog Part
Logo Number 9 Analog Clock (249 x 250) - On Preview (layer 2)
Logo Name Leitch1_adock_facefil
Storage NearLine Default
On-Line Auto Load - Loaded
Analog Part Second Hand
Fill Source L: 66.00 S: 100.00 H: 35.00°
Key Source /pcdisk/Clocks/Analog_Clocks/Leitch1_adock_min.jpg (11 x 12
Key Levels Lift: 0 Gain: 100.00 %
Audio Source None
Audio Levels N/A
Audio Play N/A
Audio Ch 1/2 N/A
Audio Ch 3/4 N/A
Audio Ch 5/6 N/A
Audio Ch 7/8 N/A
Display Logo
Key Mode Normal Key
Face
Hour Hand
Minute Hand
Second Hand

Figure 6-16 Analog Clock Menu

The following menu items will only be available for an Analog Clock logo.

Analog Part

This selection indicates which analog clock component is selected and allows you to set up the source as described in "Key Source" on page 63, except that external sources are not permitted.

- **Face** - allows set up of the fill source for the face.
- **Hour Hand** - allows set up of the fill source for the hour hand.
- **Minute Hand** - allows set up of the fill source for the minute hand.
- **Second Hand**[2] - allows set up of the fill source for the second hand.

The analog clock face graphic should be large enough so that all 3 hands are within its bounds for the entire 360° sweep of the clock about their respective rotation centers.

- In SD, the result of a hand failing to fall inside the face is that the hand is clipped at the edge of the bounding rectangle of the clock face graphic.
- In HD, the result of a hand failing to fall inside the face is that
  - If the hand can fit inside the clock face, it will be moved by the minimum amount required to fit it on the screen; but, as an indication that it has done so, it will be reduced to 50% opacity.
  - If the hand cannot fit inside the clock face at all, the clock face will fail to show the hand and the clock face opacity will be reduced by 50%.

1. On systems with MGI-3901 modules, you are limited to two analog clock layers. On systems with MGI-3902 and MGI-3903 modules, you can have up to four analog clock layers. See the *MGI-390x IconLogo Modules Product Description and User Information Manual* for more information.
2. The second hand is optional; a clock may run with only the face, hour hand, and minutes hand specified.

Time Offset

This selection allows the displayed time to be offset relative to the internal time reference.

- **# Offset** - enter the offset time on the numeric keypad, then select this soft button to change the offset.

Rotate Centre

When an analog clock element is selected, the rotational center of that element is calculated by IconLogo and appears in the Rotate Center field of the Logo menu. The position of the Rotate Center is the position in pixels and lines relative to the top left corner of the graphic about which the hands rotate. This may be altered at any time after the clock element has been selected.

- **# Centre X** changes the X coordinate.
- **# Centre Y** changes the Y coordinate.

A large analog clock, or several smaller clocks, may reduce the response time for the control panel interface.

Face Aspect

This selection indicates the adjusted size of the hands on the clock in order for it to fix properly in the face.

- **Square Pix.** - adjusts the hands to fit a standard face size.
- **4 x 3** - adjusts the hands to fit a 4×3 face size.
- **16 x 9** - adjusts the hands to fit a 16×9 face size.

Digital Clocks

A digital clock in IconLogo requires graphics for the clock background and a font file for the clock display. The face graphic file forms the background for the clock onto which the clock digits are rendered. It is specified as a normal static logo would be, except that external sources are not permitted.

A digital clock in IconLogo requires the following graphics files. These files can be created in the graphic editor of your choice and saved in any supported file format (see page 5 for supported formats).

For best results, the fonts created in the font key source file should be anti-aliased.

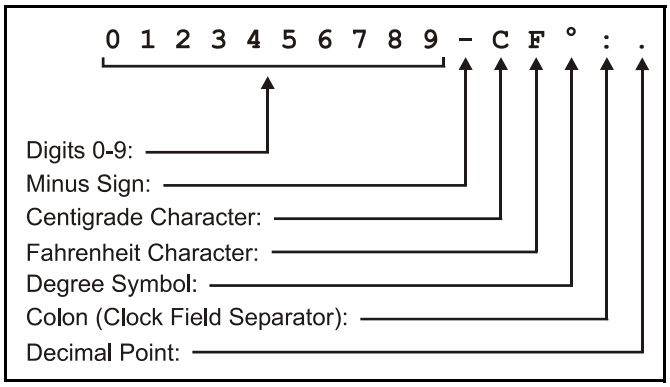
For more detailed information on how to create a digital clock logo, see “How do I create a digital clock?” on page 159.

- A font key file must be specified because it is used to specify the font characters’ cell sizes. These files must contain the pre-rendered digits and characters required by the clock key. This file is a sequence of graphic images of all clock characters rendered in a single line and in the order shown below on a black background. There must be at least two (2) vertical black (RGB 0,0,0) lines between font symbols for the file to be loaded correctly.
- An optional font fill file must contain the pre-rendered digits and characters (including textured fonts) required by the clock fill. They must correspond with the Font key file. Alternatively, you can choose to use Matte fill.

- An optional face fill file forms the background for the clock onto which the clock digits are rendered. It is specified as a normal static logo, except that external sources are not permitted, and the transparent option is available.
- An optional face key file is not required for transparent, box key, and self key logos.

The font files for fill and key are not standard font files. They are graphics files containing the pre-rendered digits and characters required by the clock for both fill and key. These must be rendered onto a background in the correct style size and color for your required clock font. Unlike other elements for IconLogo logos, a key file must be specified, as it is the key file that is used to specify the font characters' cell sizes and spacings.

An associated fill file may be created for the font, or a matte fill can be used. The characters must be rendered in a single line and in the order shown below. Characters must not overlap or contain any other information on another line.


0 1 2 3 4 5 6 7 8 9 - C F ° : .
Digits 0-9:
Minus Sign:
Centigrade Character:
Fahrenheit Character:
Degree Symbol:
Colon (Clock Field Separator):
Decimal Point:

The size of the font will change, depending on your requirement. For best results, use a size of 24 points as a starting point.

Figure 6-17 and **Figure 6-18** show example font key and fill files as required by IconLogo. **Figure 6-19** shows an example face fill for a digital clock. The face key is assumed to be a rectangle.

Each of these is specified in the same way as for a static logo.

Figure 6-17 Font Key Source

For best results, the fonts created in the font key source file should be anti-aliased. (See page 63 for an explanation of anti-aliasing.)

To insert a degree symbol (°), hold down the <Alt> key while simultaneously typing 0176 on the numeric keypad.

Figure 6-18 Font Fill Source

Figure 6-19 Digital Clock Face Fill

Figure 6-20 shows the resulting rendered digital clock using the font files shown in Figure 6-17, Figure 6-18, and Figure 6-19.

Figure 6-20 Digital Clock Rendered Over Background

The Logo menu for a new digital clock is shown in Figure 6-21. This example shows the "Digital Part" field selected.

Figure 6-21 Logo Menu Showing New Digital Clock

The following menu items will only be available for a Digital Clock logo.

Digital Part

This selection indicates which digital clock component is selected and allows you to set up the source as described in "Fill Source" on page 60, except that external sources are not permitted.

- **Face** - allows set up of the fill source for the face.
- **Font** - allows set up of the fill source for the font.

The digital clock face graphic should be large enough so that the rendered digits should fit within its bounds.

- In SD, the result of the rendered digits failing to fall inside the face is that it is clipped at the edge of the bounding rectangle of the clock face graphic.

- In HD, the result of the rendered digits failing to fall inside the face is that
  - If the rendered digits can fit inside the face, they will all be moved the minimum amount required to fit them on the screen, but as an indication that it has done so, they will be reduced to 50% opacity.
  - If the rendered digits cannot fit inside the clock face at all, the clock face will show blank and the clock face opacity will be reduced by 50%.

Once the clock face fill file, font fill, and key sources are assigned, you can use the following menu items to select the representation of time and temperature.

Time Offset

This selection allows the displayed time to be offset relative to the internal time reference.

- **# Offset** - enter the offset time on the numeric keypad, then select this soft button to change the offset.

Standard Font

This feature is not currently available.

Clock Format

This selection indicates which combination of time and temperature information will be displayed.

- **Time** - displays time only.
- **Temp** - displays temperature only.
- **Time Temp** - displays time followed by temperature.
- **Temp Time** - displays temperature followed by time.

Time Format

This selection indicates the format for the time display.

- **12/24 Hour** - toggles between an 12 hour clock and a 24 hour clock.
- **Show Seconds** - toggles the seconds display on and off.

Temp Units

This selection indicates the units for the temperature display.

- **Show Decimal** - toggles the tenths of a degree indication on and off.
- **Show Degree** - toggles the degree symbol on and off.
- **C/F** - toggles between Centigrade and Fahrenheit.

Spacing

This selection allows the spacing of the font to be adjusted.

- **# Font Space** - adjusts the spacing between individual characters.
- **# T/T Space** - adjusts the spacing between the time and the temperature.

Font Origin

This selection allows the adjustment of the time and temperature characters relative to the origin.

- **# Origin X** - changes the X co-ordinate.
- **# Origin Y** - changes the Y co-ordinate.

TT Spacing

This selection allows the adjustment of the temperature spacing.

- **#Hor.spacing** - changes the Horizontal spacing.
- **#Ver.spacing** - changes the Vertical spacing.

TT Justify

This selection allows the time and temperature to be justified.

- **Left** - left justified
- **Relative** - justified relative to the logo size
- **Center** - center justified
- **Right** - right justified

Automatic Clocks

Clocks can be set to appear automatically on air at a specified interval.

If a clock is set to appear on a layer, that layer should generally not be used for other activities unless it is known that it will not conflict with the clock. This includes setting multiple clocks to automatically appear on the same layer and using that layer under automation.

- **Auto On Air**
  - **Enable/Disable** - enables or disables the automatic on air functionality
  - **# Layer** - indicates the layer on which the clock will appear
  - **Fade/Cut** - toggles between fading or cutting the clock to and from air
- **Auto Time**
  - **# Every** - the period (in seconds) of the clock on-off air cycle; a setting of 120 (which will appear as 2:00) will cause the clock to come on air every two minutes for the specified duration
  - **# Duration** - amount of time, in seconds, that the clock will remain on air (his must be less than the value entered for **# Every**)
- **Auto TmOffse or Auto Time Offset**
  - **# Offset** - The offset in seconds from 12 a.m. of when the clock will be put on air. For example, a value of -120 (shown as -2:00) combined with a period of 1 hour will cause the clock to appear 2 minutes before each hour.

Quick Selects

The following menu selections will only be available for a Quick Select logo.

Layer # Logo

Selecting Layer 1, 2, 3, or 4 will allow you to change the options for that layer.

- **#Logo -** use the keypad to enter the number of the logo required for the selected layer then select this soft button.
- **Select/Desel -** loads or unloads the logo on the selected layer from DDR2 memory.
- **Incl/Ignored -** includes or ignores the logo on the selected layer.
- **Goto Logo** - displays the logo information for the logo on the selected layer.

Text Crawl and Titling

The Text Crawl and Titling feature enables you to create a logo that consists of crawling or steady text. It can have different fonts, shares many properties with other logos, and occupies one of the layers.The text can consist of 1 to 12 independent sentences for Text Titling or an unlimited number of independent sentences for Text Crawl, though limited to 5000 characters total. Each sentence can have its own fonts, spacing, color, and origin.

An external EAS receiver is required to allow this feature to become operational. For details please contact Customer Service.

Enabling the License Key

You must have purchased this option to obtain a license key. One license key will enable all of the purchased options.

Before you enable the Text Crawl and Titling feature, make sure you have obtained an appropriate license key. You will need to provide the Customer Service representative with the serial number of your MGI-3903 module. (You can find out the serial number of your MGI-3903 by pressing **# Key** while in the **Extra Licenses** field. The number will be displayed on the IconLogo screen.)

At the IconLogo control panel:

1. Select **Eng**.
2. Press the **More** button to access additional choices.
3. Select **Extra Licenses**.
4. Press the **# Key** button.

Extra Licences
Machine Setup (cont.)
DDR Alarm 100 %
Disk Alarm 100 %
Sync Select Auto (Ref.) - OK
Capture Mode Field 2 Dominance
Capture Path /podsk/image
Extra Licences VB(-)Text(-)EAS(-)
EAS logos Disabled
EAS protocol CODI
Field Rate 59.9 Hz
HD Standard Auto (1080i)
Machine Status
Prog. In 1080i 59.94 Hz
Fill In Missing
Key In 1080i 59.94 Hz
Ref. In 1080i 59.94 Hz
SDI Audio Missing
AES Audio 1/2 3/4 5/6 7/8
LTC In Missing
DCF In Missing
MGI Type High Def.
DDR Capacity 22 % of 512.48 M
Sys. Memory 24 % of 56.66 M
Disk Space 10 % of 977.13 M
S/W Version V3.00hd7
Built On Oct 17 2005 @ 09:07:39
Fonts Loaded 1:Ok 2:Ok 3:Ok
#Key
More...

Figure 6-22 Extra Licenses Menu

5 Enter the license key provided by your Customer Service representative.

"The option is now active" message will display on the bottom left of the screen and (+) will show after Text in the Extra Licences parameter to indicate that the Text Crawl and Titling features have been enabled.

Configuring a Text Crawl or Text Titling

For parameter details, see "Navigating the Logo Menu" on page 56.

At the IconLogo control panel, make these selections:

1 Select the **Logo** menu.
2 Press the **Create** button.
3 Press the **More** button.
4 Select the **Text Crawl** option.
5 Choose all appropriate items in the menu.
6 Enter **Name**.
7 Choose **Type of Storage**.
8 Choose **Automatic** or **Manual** loading.
9 Select the **Text** field. The Logo Text window will appear

The Text menu consists of two windows: the initial entries window (see Figure 6-23 on page 83) and the "End Action" entries window (see Figure 6-24 on page 84).

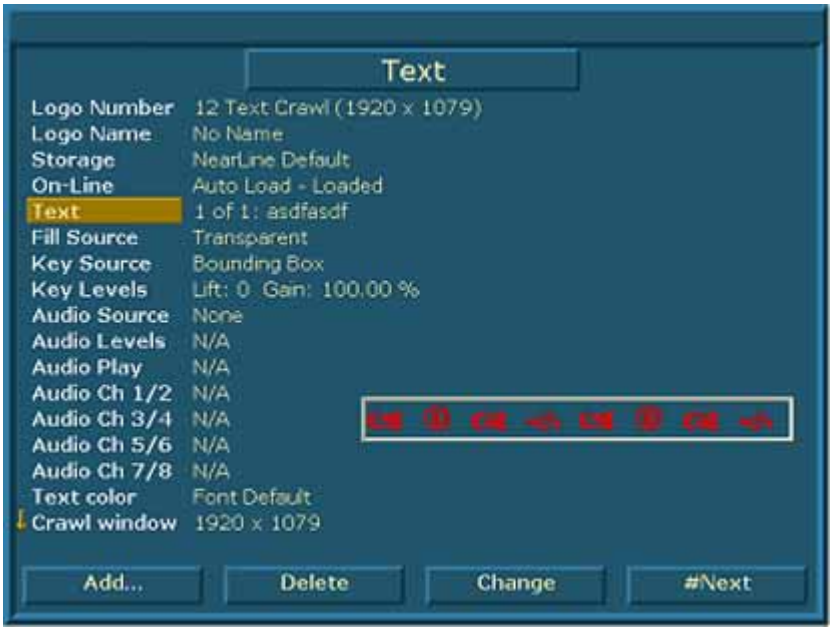


Figure 6-23 Logo Text Menu (First Window)

*When you set font, text spacing, text color, and text origin, they will apply to the sentence you have added most recently; that is, to the one being currently displayed in the **Text** field. To set those parameters for other sentences, toggle between them by pressing the **Next** button while at the **Text** field.*

10 Press **Add** and enter the actual text for the first sentence. (You can continue to add sentences by pressing **Add** again and entering additional text.)

The visible IconLogo portion of the sentence is limited by 720 pixels (for the IconLogo preview monitor) or by 44 characters (for the control panel screen. You can continue to enter text, but the characters will be "invisible" while in preview. Those characters will be entered in the next sentence. (If you have reached the sentence limit [30 for Crawl; 12 for Titling], all remaining text will be truncated.) If you want to see those "invisible" characters, press the **Enter** key at any time to go to the next sentence. The editor will try to split this long text into sentences on blank delimiting basis. However, when the text in the sentence is substituted; for example,by future manual editing, it will be truncated to the initial size of the sentence.

11 Set these items to the settings you want:

- **Key Levels**
- **Audio Source**
- **Audio Levels**
- **Audio Play**
- **Text Color** is set per each sentence. It will correspond to the one being currently displayed upon **Text** field. It can be set to the **Font Default**, or **Matte**. In latter case it will be necessary to set the color parameters such as Luma (luminance), Sat (saturation), and Hue.
- **Crawl Window**[1] sets text window length and height in pixels. To define the text crawl window size:
  - Enter a numeric pixel value.
  - Choose one of these options:
  - Press **# Size H** to set this value for horizontal text window size.

1. This item is not applicable to Text Titling logos.

- **Position**[1] defines the start position (at the left side) of the text window in pixels. It can be set either manually or by using presets for Center, Left, Right, etc., of the screen.
  - To define the start position manually, enter a value and press **Pos X** or **Pos Y**, respectively.
  - To use a preset start position:, press **Presets**, press **Horizontal** or **Vertical**, and then choose the appropriate preset position. Alternatively, you can choose to use **File Default** position values after pressing **Presets**, if the file has an appropriate data associated with it.

For horizontal position, "0" denotes the extreme right position on the screen, i.e. the text will start crawling from the very right edge to the left. A shift of the start position to the left assumes a negative value. For example, "–56" would represent start position in middle of the screen.

At this point, the Logo Text window will scroll down to display the "end action" entry fields (see **Figure 6-24**).

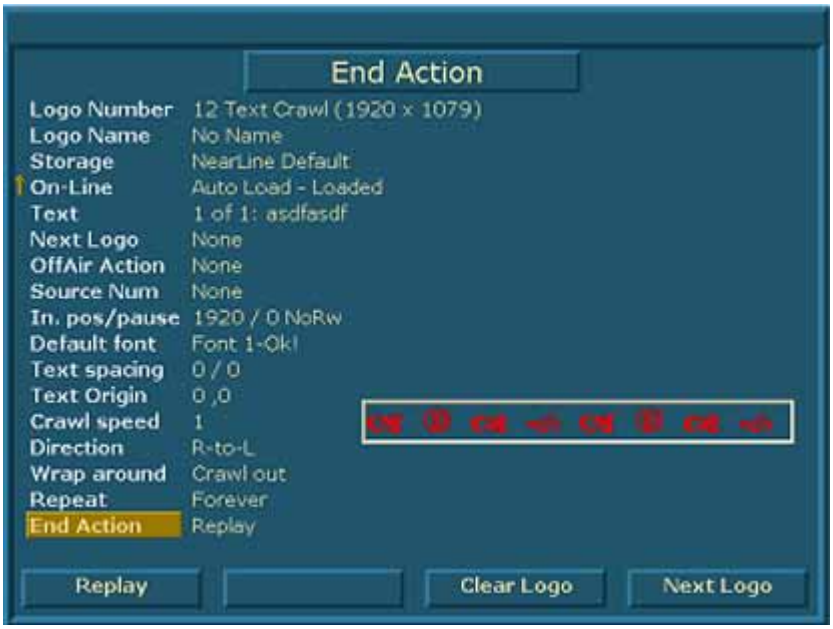


Figure 6-24 Logo Text End Action Menu

12 The remaining item values are as follows:

- **Opacity** sets the percent of the text opacity (100% = totally opaque; 0% = totally transparent).
- **Fade Rates** (This parameter does not apply in the IconLogo configuration.) set the rates in frames for the text fade in and out.
- **Next Logo** (This parameter does not apply in the IconLogo configuration.) sets the number of the logo to be displayed when the crawl is finished (in case of non-infinite crawling). It can be set to a value of None.
- **Source Num** sets the source number to be displayed while the text is On Air. It can be set to a value of **None**.
- **In. Pos/Pause** field defines the initial horizontal position of the text (when it begins to be displayed) in pixels and delay in frames between the beginning of On Air time for the logo and the crawl start. In the latter case, the text will be displayed as static immediately.

- **Default Font** defines the font to be used for current sentence. It corresponds to the sentence being currently displayed in the **Text** field.
- Currently there are three preset fonts:
  - Font1 is Ariel Black — Font1 looks like this.
  - Font2 is Century Gothic — Font2 looks like this.
  - Font3 is Myriad — Font3 looks like this.

  These fonts can be overwritten with custom fonts created by using the Font Utility (see ***Creating Fonts*** on page 300).
- **Text Spacing** defines horizontal spacing between characters.
- **Text Origin** defines horizontal and vertical coordinates of the start of the sentence within the text window. Thus, coordinates "0, 0" denote the sentence displayed from the left side of the box (or right after the end of the previous sentence), centered vertically. It corresponds to the sentence being currently displayed upon **Text** field. By default, all of the sentences for Text Titling will appear one on top of the other, so that only the topmost sentence will be displayed. This parameter can be used to adjust the position of the sentences so they appear side-by-side, or above and below one another.
- **Crawl Speed**[1] sets the speed of text crawling in pixels per field.
- **Direction** can be set to **Right-to-Left** for normal crawling, or to **No Crawl** for static display of the text. In the latter case the text will be displayed starting from the first sentence in the appropriate position, and limited at the right side by the screen edge (or text window size, if smaller).
- **Wrap Around** sets the behavior of a crawl when the last sentence is being displayed.
- **Crawl Out**[1] means that the first character of the first sentence will be displayed only after the last character of the last sentence stops being displayed (i.e., "crosses" the left edge of the screen or the text window, if smaller).
- **Circular**[1] means that the first character of the first sentence is displayed right after the last character of the last sentence, i.e. sentences are crawling in continuous "chain" motion.
- **Repeat**[1] field defines how many times the entire crawl will repeat. It can also be set to **Wrap Forever**, which means the crawling will stop only upon removing the logo from On Air.
- **End Action**[1] defines what to do after the entire crawl has finished. It can be set to the following options:
  - **Replay** means the crawling will stop only upon removing the logo from On Air
  - **Clear Logo** displays an empty logo upon crawl termination
  - **Next Logo** displays another logo after the text finishes crawling; this logo will be the one set in the **Next Logo** field.

    If set to **None**, the next logo will be the one that is currently **Next** for this layer (can be seen in the layer preview).

Modifying Text Crawl and Text Titling Parameters

All of the configuration parameters described can be changed while in use, from the **Logo** menu (see "Configuring a Text Crawl or Text Titling" on page 82).

Keep in mind that the font, text spacing, text color, and text origin parameters will apply to the sentence you have added most recently; that is, to the one being currently displayed in the **Text** field. To set those parameters for other sentences, toggle between them by pressing the **Next** button while in the **Text** field.

1. This item is not applicable to Text Titling logos.

Adding and Deleting Sentences

You can add and delete sentences by pressing the **Add** or **Delete** buttons while in the **Text** field.

Modifying an Existing Sentence

1. Select the sentence within the **Text** field (by pressing **Next** button).
2. Press **Change**.
3. Edited the sentence.
4. Press the **Enter** button to finish the edit sequence.

Inserting a Logo into Text Crawl or Text Titling

A pre-defined logo can be inserted into a Text Crawl or Text Titling logo by using the '^' character. A different logo can be assigned to each of the three fonts. To define the logos see ***Using the Font Utility*** on page 299.

Logo Storage

Storage Types

Storage is a flat set of logos (i.e., a directory with files, but no subdirectories). Each logo must belong to one storage, but may belong to one on-line storage and one near-line storage at the same time. If a logo belongs only to on-line storage, it is considered a temporary logo.

IconLogo has two types of storage: on-line storage and near-line storage.

- On-line storage is the DDR. It is used for storing ready to play logos. It is volatile storage.
- Near-line storage is compact flash. It is used for permanent logos which are not loaded to the DDR. Logos can also be moved between different near-line storages or they can be deleted from them. The near-line storage ID becomes an attribute of the logo, which allows the grouping of logos with the same attribute. Up to 99 near-line storages can be created and used to classify logos.

CAUTION

Moving near-line logos from one storage to another does not physically move the logo file location.

Logos can be loaded from near-line to on-line either manually or automatically. Logos can be unloaded from On-line manually. This allows the optimization of on-line space.

Using Logo Storages

You can enter the logo storages by pressing the “File” menu button twice (in succession).

The following options are available within the Storage List menu:

- **Modify** allows you to change the current storage

- **Edit** allows you to change the Description or Path of a selected storage (you will need to have a keyboard connected to change the description)

  For a description:

  - **Clear** clears the description
  - **...Cancel** cancels the changes and returns to the Edit menu
  - **...Enter** changes the description and returns to the Edit menu

  For a path (see "Navigating the File Menu" on page 87)

- **Add** adds a new storage, to a maximum of 7 storages
- **Delete** deletes the selected storage
- **Exit** returns to the Storage List menu

- **Show Files** allows you to view the list of files in a particular storage (see "Navigating the File Menu" on page 87)
- **Logo Filter** allows you to view the logo list in the selected storage
  - **# Show** allows you to view the logo details. See "Navigating the Logo Menu" on page 56 for details.
  - **Load** loads the logo to the DDR memory
  - **Unload** unloads the logo from the DDR memory
  - **Storage** returns to the Storage List menu

Navigating the File Menu

You can enter the File Menu by selecting key and fill sources or the **File** menu button. **Figure 6-25** shows the File List menu displaying the files available at the selected directory.

Figure 6-25 File Menu

*When a blank compact flash is inserted into an MGI-3901 module, the required file structure and setup files are written to the compact flash; however, it will be a default setup. To copy the current setup, use **CFlash Clone**.*

To navigate through the file list, use the top pot to move left and right, use the bottom pot to move up and down. Once a file has been selected, pressing down on either pot will display the same options as listed below in the soft buttons. Navigation through these options is the same as described above and performs the same functions as listed below.

The following options are available from the soft button options:

- **View File...** allows the selected file to be viewed and given the option of being selected as a logo or animation. The following options are available within the View File menu:
  - Select **# To Logo...** to set the file as a logo. See the Logo Menu section for further details.
  - Select **# To Key...** to set the file as a key. See the Logo Menu section for further details.
  - Select **As Anim** to set the file as an animation. This option is not available in call cases. See the Logo Menu section for further details.
  - Select **...Exit** to return to the main file list menu.
- **File Filter...** allows only graphic files of a certain type to be viewed. (**Figure 6-26** shows the selections available.) The following options are available within the Change File Filter menu:
  - **...Use** uses the filter selected and displays only files of this type in the file menu.
  - **...*.*** reverts to displaying files of all types.
  - **...*.mg2** displays files of mg2 type only
  - **...Exit** returns to the main File List menu..
- **File Path...** allows you to go to the **Change File Path** menu (see **Figure 6-26**). The Change File Path menu will show the directory structure of the current file path.
  - Select "**/..**" followed by the **Select** soft button to take the file path up a level.
  - Select a directory (as in the example above) followed by the **Select** soft button to take the file path into that directory.
  - Press the **...Sel & Exit** button to view the files in the selected file path.

  New file paths can be created and old ones deleted from the Change File Path menu.

  To create a new path, follow these steps:

1. Press the **Create Path...** soft button.
2. Using the attached QWERTY keyboard, enter the new path name (no spaces).

   The path as entered can be seen highlighted in blue in the Current Path bar at the top of the menu.

   The entered text can be changed as follows:
   - Clear the entered text by pressing the **Clear** soft button.
   - Cancel the entered text, leaving no new path, by pressing the **...Cancel** soft button.
   - Use the entered text as the new path name by pressing **...Enter**.

   To delete a path, follow these steps:

1. Select (highlight) the path in the menu using the soft pots.
2. Press the **Delete Path...** soft button.
3. Press the **...Confirm** soft button.

   To cancel the deletion, press the **...Cancel** soft button.

- **More...**
  - **Delete...** deletes the selected file

- **CFlash Clone** copies the system files of the current system onto a new compact flash card (this option does not allow you to copy Logo files).
- **CF Reload** reloads the logos from the compact flash into the MGI fast access logo memory in the same way as a system power-up. It is useful, for example, if the compact flash is changed for an alternative machine configuration.

- **Exit...** returns to the main File List menu.

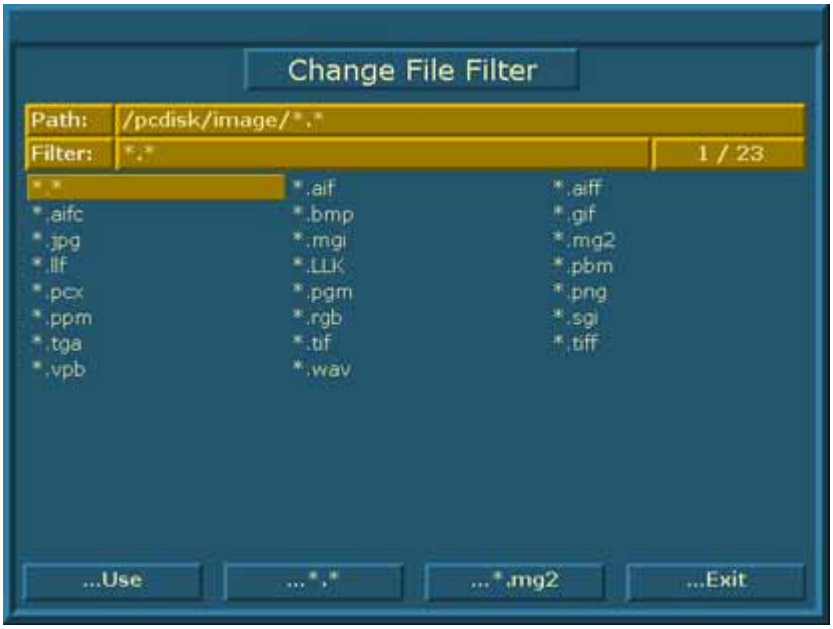


Figure 6-26 Change File Filter

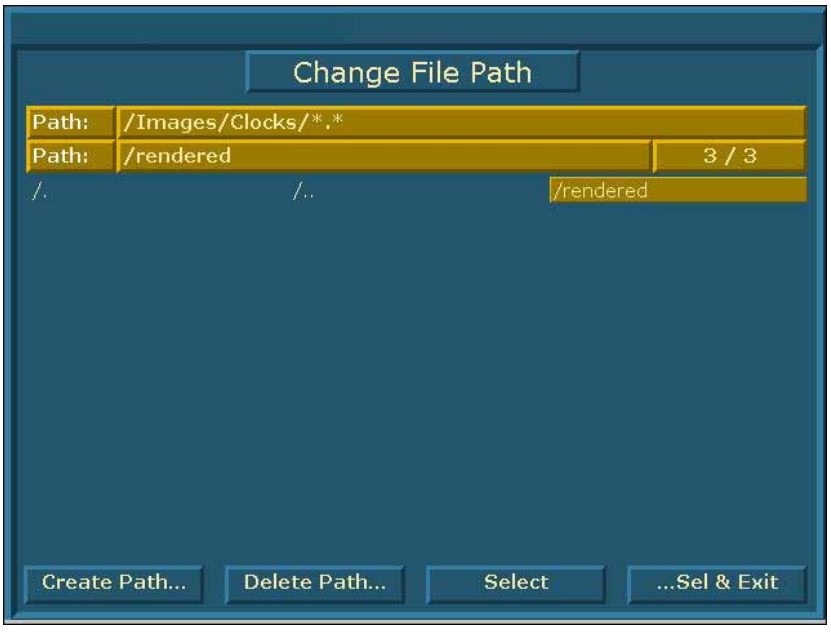


Figure 6-27 Change File Path Menu

Navigating the Engineering Menu

The IconLogo Engineering menu consists of three main menu pages that are linked together through soft buttons and five sub-menu pages that are linked to items in the Set-up menu.

Quick access to all eight menu pages is available through the top soft pot button (*see* **Figure 6-28**):

- Press the top soft pot button once and release. A menu selection window will appear.
- Scroll through the soft pot list to the desired selection.
- Press and release the top soft pot button again.
- The first item in the list will leave the menu page selection unchanged.

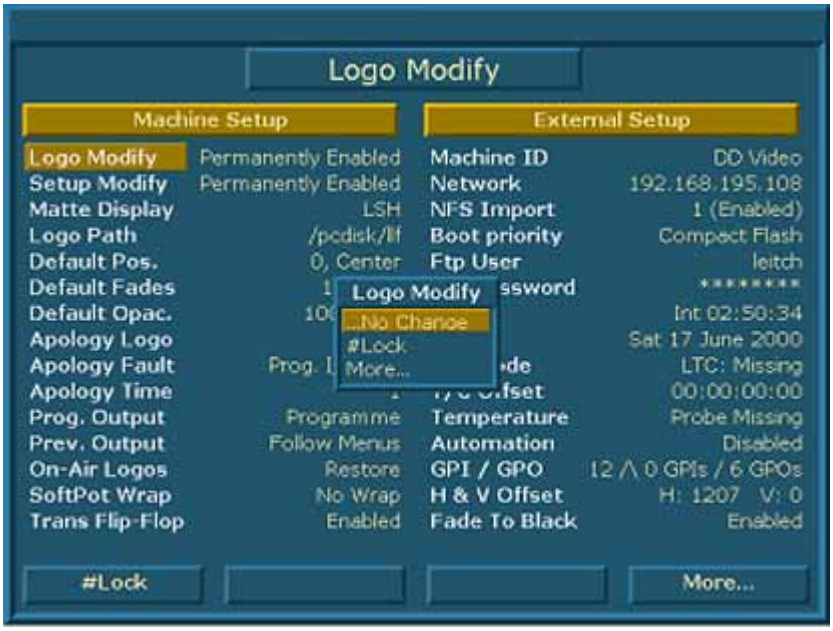


Figure 6-28 Engineering Selection Menu

Set-Up Menu Page

The first Set-Up menu page provides the setup of the video I/O and the user-definable parameters of the control panel user interface (*see* **Figure 6-29**).

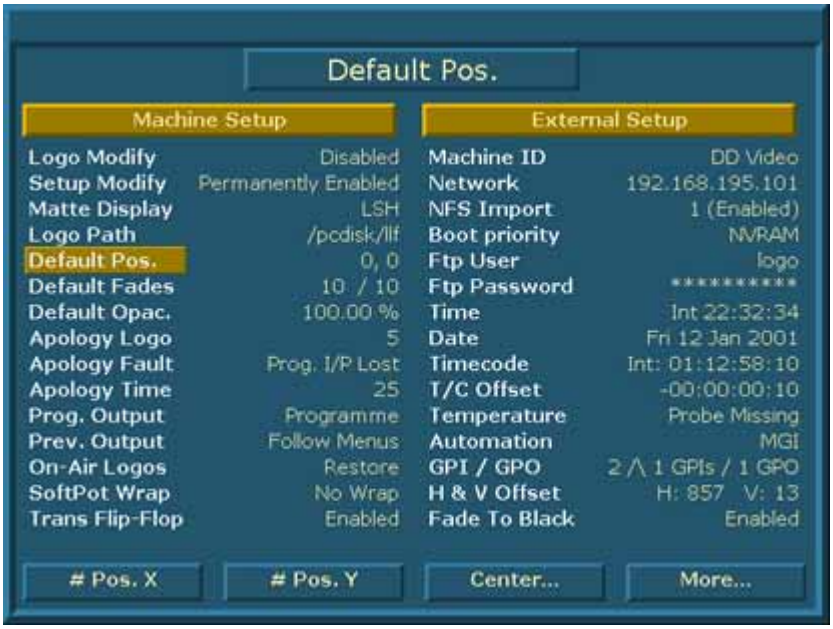


Figure 6-29 Engineering Set-Up Menu Page

The parameters listed on this menu page are explained below.

Logo Modify

This parameter allows logos to be created and modified. It may be disabled so that only authorized users can alter or delete logos.

The logo creation side of the IconLogo control panel is lock-protected to protect logos from accidental modification or erasure.

To unlock and enable logo creation and modification, follow these steps:

1 Select the "Logo Modify" item using the top soft pot.
2 Enter the lock number (on new systems, the lock is 1234).
3 Press the **# Unlock** soft button.

To relock and disable logo creation and modification, follow these steps:

1 Select the "Logo Modify" item using the top soft pot.
2 Press the **Lock** soft button (does not require the lock number).

To change the lock number for the system, follow these steps:

1 Select the "Logo Modify" item using the top soft pot.
2 Enter a new lock number (between 1 and 6 digits).
3 Press the **#Change Key** soft button. The soft buttons will change, requiring you to enter it again.
4 Enter your new lock number again.
5 Press the **Change Lock** soft button again.

To permanently enable Logo Modify mode, follow these steps:

1 Select the "Logo Modify" item using the top soft pot.

2 Press the **Perm.Enable** soft button.

As a precaution, IconLogo automatically comes out of Logo Modification mode when the panel releases control of it.

Set-Up Modify

This parameter allows engineering set-up to be modified. It may be disabled so that only authorized users can change it.

To unlock and enable Engineering Set-Up modification, follow these steps:

1 Select the "Setup Modify" item using the top soft pot.
2 Enter the lock number (on new systems the lock number is 1234).
3 Press the **# Unlock** soft button

To relock and disable Engineering Modification, follow these steps:

1 Select the "Setup Modify" item using the top soft pot.
2 Press the **Lock** soft button (does not require the lock number).

Matte Display

The matte color internally generated by IconLogo (which can be used as a fill for logos or logo elements such as clock hands), can be viewed, entered, or modified in one of two color models:

- **Display RGB** (red, green, blue) – values all have the range 0-255
- **Display LSH** (luminance, saturation, hue) – hue value 0-359.99 degrees, the other values 0-100%

Logo Path

IconLogo loads graphics and audio files in their native formats. There is still a lot of detail required to define these files as logos, animations, and clocks. This detail is held in a file (one for each logo) in the directory shown by the path shown in the Logo Path parameter.

3 *To change the path used for these files* (for example, to a directory on an external NFS server which all IconLogo units in a network can share), *follow these steps:*

1 Press the **ChangePath** soft button or press the bottom soft pot. The path shown in the menu will be cleared.
2 Using a standard PC keyboard plugged into the control panel, enter the new path.
3 To finish, choose one of the following options:
   - Press the **Enter** soft button
   - Press the bottom soft pot
   - Press the keyboard <**Enter**> key. If the new path cannot be found, the previous name will be reloaded.

During keyboard entry, the following operations are available:

- To clear the currently entered text, press the **Clear** soft button.

- To delete the last entered character, press the **<Del>** or **<Backspace>** key on the keyboard.
- To cancel the operation and revert the previous path, press the **Cancel** soft button.
- To stay in edit mode but enter the previous path as a starting point, press the **As Before** soft button.

When the logo path has been successfully changed, the logos in the system (including any on air (will not have changed. You can force the removal of all reference to the current logos including the Video/Audio memory they use, and load up the logos from the new path.

To clear the current logos, press the **Clear Logos...** soft cleared.

To load logos from the new path, follow these steps:

1. Press the **ReloadLogos** soft button
2. Make one of the following choices:
   - Press the **...Reload All** to load new logos over the old logos (replacing all logos)
   - Press the **...Reload New** to load only logos whose numbers are not already used by the current loaded logos
   - Press **...Cancel** to return to the Logo Path menu.

   As a security feature, none of the above operations will clear logos that are on air or on preview in any layer.

Default Pos.

*Using the centering feature will show **Centre** on both the Engineering set-up page and on the position parameter values for new logos on the Logo menu. The numerical values will not actually be calculated for centered logos until the logo size has been determined by loading in a fill or key source.*

Some file formats contain position information (such as the previous LogoMotion MGI format). Where a logo is created from graphics files which contain valid position values, those values will be used instead of the defaults.

The position value of newly created logos is determined by the values set in this parameter. Each of the x and y values, can either be a numerical value (such as 0,0 – the top left hand corner of the active picture), or the screen centre. The first value denotes x – or the horizontal position and the second value denotes y – or the vertical position.

To change the default to a numerical value, follow these steps:

1. Enter the numerical value (positive values only).
2. Choose one of these options:
   - Press the **# Pos X** soft button for the horizontal default
   - Press the **# Pos Y** soft button for the vertical default.

   To change the default to be center of active picture for new logos, follow these steps:

1. Press the **Centre…** soft button.
2. Press one of these soft buttons:
   - Press the **H only** soft button to have horizontal centering on new logos.
   - Press the **V only** soft button to have vertical centering on new logos.

- Press the **Both** soft button to have both horizontal and vertical centering on new logos.

Default Fades

When a logo is transitioned from preview onto the program output of any layer, its transition time (as shown in the Logo menu for the currently selected logo) will be used. A separate fade down time is used when the logo is faded off air. These parameters may be altered for each logo in the system.

This parameter in the Engineering Set-Up menu shows the defaults for these values, used when a new logo is created.

To change the default fade times, follow these steps:

1. Enter the numerical value in one of the following formats:
   - Frames (for example, 12)
   - Seconds and frames (for example, 1:03 – one second and three frames)
   - Minutes, seconds, and frames (for example, 1:23:12)
2. Press one of these soft buttons:
   - Press the **# Fade Up** soft button to change the default time to fade a logo on air.
   - Press the **# Fade Down** soft button to change the default time to fade a logo off air.

Default Opacity

When a logo is first created, its opacity is set to the default value shown by this parameter.

To change the default opacity for all new logos, follow these steps:

1. Enter the new value (0% – 100%).
2. Press the **# Opacity** soft button.

Apology Logo

When an input error occurs (such as the loss of the program input), an automatic "apology logo" can be aired (after a preset timeout), removing all other logos from the output. As soon as the error condition has been cleared, the apology logo will be removed and the logos which were aired prior to the error occurring will go back on air.

It is not possible to enter a value for a logo that does not exist. However, if the current logo number does not exist (it has been deleted for example), then the menu will show that it is "Missing."

To set the apology logo, follow these steps:

1. Enter the logo number using IconLogo Control Panel number pad.
2. Press the **#Logo Slot** soft button.

   To clear the apology logo, press the **Clear** button.

Apology Fault

This parameter (which is only enabled when an apology logo exists) can be set to one of the following modes:

- **Program Input Missing –** when the program input disappears or has an error for more than the "Apology Timeout," the logo will be aired until a valid program inputs reappears. ***To select this mode***, press the **No Prog I/P** soft button.
- **Ref Input Missing –** when the reference input disappears for more than the "Apology Timeout," the logo will be aired until the reference reappears. ***To select this mode***, press the **No Reference** soft button.
- **Any error –** when the program input disappears or has an error, or the reference input disappears for more than the "Apology Timeout," the logo will be aired until the error clears. ***To select this mode***, press the **Any Fault** soft button.

Apology Time

This is the timeout[1] after which if there is a persistent error (as set by Apology mode) the apology logo will be aired.

To set the apology timeout, follow these steps:

1. Enter the timeout using the keypad.
2. Press the # **Timeout** soft button.

Prog. Output

The Program Output parameter can operate in one of two modes:

- **Program mode –** In Program mode, the IconLogo unit takes the program input and keys the logos over the top of it, using an internal keyer. ***To select this mode,*** press the **Programme** soft button.
- **Fill and Key mode –** In Fill and Key mode, the finished composite of the logos on all layers is fed out of the machine as separate fill and key for keying by an external downstream keyer. (External Fill and Key inputs cannot be used in Fill and Key output mode.) ***To select this mode,*** press the **Fill/Key** soft button.

The outputs used in each mode are described in the "IconLogo System Overview" on page 21.

Prev. Output

The Preview Output parameter can operate in one of two modes:

- **Preview mode –** In Preview mode, the Preview output of the machine always shows the next-logo-on-air which the user or automation system has selected. ***To select this mode,*** press the **Preview Mode** soft button. This is primarily intended to be the default mode of operation when the unit is on-air.
- **Follow Menus mode –** In Follow Menus mode, the Preview output can be used to help set up the logos. In this mode it will "follow" the current menu by displaying the logo that is currently being set up or previewed in the Logo menu or the Preview menu. ***To select this mode***, press the **Follow Menus** soft button. In the File, On-Air, and Engineering menus it operates in the same way as Preview mode.

1. There is no timeout for the recovery of the auto apology mode. The apology logo will disappear and the previously aired logos will go back on air as soon as the error is cleared.

On-Air Logos

When IconLogo powers up, it loads up all the logos and engineering setup information from a combination of its compact flash card and any network file systems that it may use. In this way, all logos created and modified and all system settings are retained by the machine, regardless of how long it is switched off.

For machines that are used almost continuously in a live situation, when there is a power outage the machine will reload all logos, and immediately put back on air those logos that had been on air when the power was lost.

To select this mode, press the **Restore** soft button.

To minimize time-to-air from a power recycle, the logos which were last on-air are loaded from compact flash (or network) first. This is regardless of which Reboot option is selected.

In other situations (such as when a new system is brought on line with the compact flash settings copied from another machine), it would be advantageous to have the system load everything, but not immediately air the logos.

To select this mode, press the **Don't Restore** soft button.

Soft Pot Wrap

This parameter is a user preference, which wraps soft pot movement in all menus between the last and first parameters.

- *To enable the wrap feature*, press the **Wrap On** soft button.
- *To disable the wrap feature*, press the **Wrap Off** soft button.

Trans Flip-Flop

This parameter selects the mode of operation for on-air transitions. When this is enabled, the currently On-Air and Preview logos swap place after a transition. When disabled, the logo on-air will also be left on the preview. In this mode the CUT and TRANS buttons will do nothing, as both on-air and preview are the same.

To disable this feature, press the **Disable** soft button.

To enable this feature, press the **Enable** soft button.

Machine ID (and Panel Release)

The IconLogo control panel can control any IconLogo module on its network. To enable easy identification when selecting which machine to control, give each unit a unique name (for example, channel name).

To change the machine name, follow these steps:

1. Press the **Rename...** soft button or the bottom soft pot. The name shown in the menu will be cleared.
2. Using a standard PC keyboard plugged into the control panel, enter the new name.
3. To finish, choose one of these options:

- Press the **...Enter** soft button
- Press the bottom soft pot
- Press the keyboard **<Enter>** key.

During keyboard entry, the following operations are available:

- To clear the currently entered text, press the **Clear** soft button.
- To delete the last entered character, press the **<Backspace>** key on the keyboard.
- To cancel the renaming operation and revert the previous name, press the **...Cancel** soft button.
- To stay in edit mode but enter the previous name as a starting point, press the **As Before** soft button.
- To release control of the current machine, select the **Release...** soft button.
  - **...Cancel** cancels the action and returns to the previous selections.
  - **...Confirm** releases control of the current machine. The control panel no longer has control of the machine.
- To switch the temperature display for the this menu between Celsius and Fahrenheit, select the **Switch C/F** soft button.

Network

IconLogo uses an external 100Base-T Ethernet port on the rear connector module, for connection to the network for control panels and for network file systems (which can be used for NFS attached storage for graphics and logo files).

This network connection is entirely independent of the CCS network that operates through the resource module on the NEO frame. As such, the network detail needs to be set up for each IconLogo unit (even though in practice all IconLogo units will have identical settings except for their IP addresses).

Use the network selection of the Set-up menu for setting the following network details:

- **Machine IP address**
- **Host table** – to assign names to IP address for NFS servers used by the IconLogo unit
- **Routing table** – to assign routes from the network on which the IconLogo sits, to other network s through gateway machines (i.e., machines that have network connections on both the local and remote networks)

Performing this operation, if it changes the IP address of the machine, will inevitably release the machine from panel control (as the panel does not know about the change of address). To regain control of the panel, enter the new IP address into the panel's list of "reachable" machines. See ***Adding a Machine's IP Address*** *on page 79 for details.*

To set the IP Address, follow these steps:

1. Press the **IP Address...** soft button.
2. Enter the new IP address using the panel number pad (or external keyboard), using the colon character (":") in place of the dots in the IP address.

   While changing the IP address, the soft buttons change to provide the following functions:

   - Press the **As Before** soft button to recall the previous value. In this way you can just change the last value.
   - Press the **Clear** soft button to clear the entered value and start again.

- Press the **...Cancel** soft button to cancel the whole operation and restore the previous value
- Press the **...Enter** soft button to end the operation and save the new IP Address of the machine. (Pressing the <**Enter**> key on the keyboard has the same effect.)

To access the Host table setup menu:

Press the **Hosts...** soft button. The menu will change to show the host table entries on the left and the routing table entries on the right.

- Press the **Add** soft button to add a new entry to the table.
- Press the **Delete** soft button to delete the selected table entry.
  - Press the **...Cancel** soft button to cancel the operation and start again.
  - Press the **...Confirm** soft button to delete the table entry.
- Use the soft pots to select each parameter in the new entry and press the **Modify...** soft button. Enter the machine name in the left column and enter the IP address of the entry in the right column.

While modifying entries, the soft buttons change to provide the following functions:

- Press the **As Before** soft button to recall the previous value. In this way you can just change the last value.
- Press the **Clear** soft button to clear the entered value and start again.
- Press the **...Cancel** soft button to cancel the whole operation and restore the previous value
- Press the **...Enter** soft button to end the operation and save the new value for the entry. (Pressing the **<Enter>** key on the keyboard has the same effect.)

To access the Routing table setup menu, follow these steps:

Press the **Routing...** soft button. The menu will change to show the host table entries on the left and the routing table entries on the right.

- Press the **Add** soft button to add a new entry to the table
- Press the **...Delete** soft button to delete the selected table entry.
  - Press the **...Cancel** soft button to cancel the operation and start again.
  - Press the **...Confirm** soft button to delete the table entry.

3 Use the soft pots to select each parameter in the new entry and press the **Modify...** soft button. Enter the name of the gateway machine in the right hand column and enter the IP address of the network to which it acts as gateway in the left hand column.

While modifying entries, the soft buttons change to provide the following functions:

- Press the **As Before** soft button to recall the previous value. In this way you can just change the last value.
- Press the **Clear** soft button to clear the entered value and start again.
- Press the **...Cancel** soft button to cancel the whole operation and restore the previous value
- Press the **...Enter** soft button to end the operation and save the new value for the entry. Pressing the <**Enter**> key on the keyboard has the same effect.
- Press the **...Confirm** soft button to end the operation and save the new value for the entry. Pressing the <**Enter**> key on the keyboard has the same effect.

NFS Import

As described in "Logo Storage and Loading" on page 121, IconLogo can effectively extend its file storage capacity by using exported network file systems. This parameter on the menu allows you to enable or disable this function or to jump to the menu page that sets up the imported machines and file systems. See page 121 through page 126 for more details.

Using NFS import can slow the system down if the remote NFS server is not "mounted" or is off-line. If the NFS server becomes disconnected from the network for any reason, the NFS import should be disabled. Once connection is re-established, NFS may be re-enabled.

To disable NFS Import, press the **Import Off** soft button.

To enable NFS Import, press the **Import On** soft button.

To access the NFS Import table, press the **Setup...** soft button. The menu will change to show the import table entries.

- Press the **Add** soft button to add a new entry to the table.
- Press the **Delete** soft button to delete the selected table entry.
  - Press the **...Cancel** soft button to cancel the operation and start again.
  - Press the **...Confirm** soft button to delete the table entry.
- Use the soft pots to select each parameter in the entry and press the **Modify...** soft button.

While modifying entries, the soft buttons change to provide the following functions:

- Press the **As Before** soft button to recall the previous value.
- Press the **Clear** soft button to clear the entered value and start again.
- Press the **...Cancel** soft button to cancel the whole operation and restore the previous value.
- Press the **...Confirm** soft button to end the operation and save the new value for the entry. Pressing the **<Enter>** key on the keyboard has the same effect.

Boot Priority

When the system is powered up, this selection indicates where the IP address is read from.

- Press **Compact Flash** to use the IP address from Compact Flash.
- Press **NVRAM** to use the IP address that was being used when the system was powered off.

FTP User

The file systems on both the compact flash and the software flash-stick (on which the system code and firmware resides), is accessible over the network through FTP. This allows new firmware/software to be transferred directly to the flash stick, or logo images to be FTP transferred directly onto the compact flash.

To override the default user for FTP transfer, follow these steps:

1. Press the **Change...** soft button.
2. Enter the new user name.
3. To finish, choose one of these options:

- Press the **Enter** soft button
- Press the **<Enter>** key on the keyboard.

While modifying entries, the soft buttons change to provide the following functions:

- Press the **As Before** soft button to recall the previous value.
- Press the **Clear** soft button to clear the entered value and start again.
- Press the**...Cancel** soft button to cancel the whole operation and restore the previous value.

FTP Password

To change the FTP password, follow these steps:

1. Press the **Change** soft button.
2. Enter the new FTP password.
3. To finish, choose one of these options:
   - Press the **Enter** soft button
   - Press the **<Enter>** key on the keyboard.

   While modifying entries, the soft buttons change to provide the following functions:
   - Press the **Clear** soft button to clear the entered value and start again.
   - Press the **...Cancel** soft button to cancel the whole operation and restore the previous value.

Time

The IconLogo main board has a built-in, battery backed, real time clock. This clock is used as the time stamp for files created in the file system on the compact flash. It may also be used as a source of time for on-air clocks (if a time code source is not available).

To select the time code as the source of time for on-air clocks, press the **Timecode** soft button. The currently selected time code source will be used as the source for time (see "Timecode" on page 101).

To change the time source for on-air clocks to be the internal clock, press the **# Internal** soft button.

To alter the time on the internal clock, follow these steps:

1. Enter the time as hours; hours and minutes; or hours, minutes, and seconds (using the colon character ":" on the keypad as a delimiter).
2. Press the **# Internal** soft button.

   Time entry precedence is as follows:
   - If only one number is entered (e.g., 13), only the hour will be changed (so if the time shown was 11:34:02, the time will be changed to 13:34:02).
   - If two numbers are entered delimited by a ":" character (e.g., 13:16), the hour and minute will be changed (so 11:34:02 will become 13:16:02).
   - If three numbers are entered delimited by a ":" character (e.g., 16:16:09), the hour, minutes, and seconds will be set (so 11:34:02 will become 16:16:09).

Date

The IconLogo system date (for use with time-stamping the date on the file system) is maintained by the internal system clock.

To set the date, follow these steps:

1 Enter the day; or the day and month; or the day, month, and year (delimited by the ":" key).

Do not enter more than two digits for the year; 20xx is assumed.

2 Press the **# Date** soft button.

Date entry precedence is as follows:

- Entering a single value (e.g., 5) will change the day only (so 4th July 2003, would become 5th July 2003).
- Entering two values (e.g., 5:6) will change the day and the month (so 4th July 2003 would become 5th June 2003).
- Entering three values (e.g., 5:6:4) will change the day, month, and year (so 4th July 2003 would become 5th June 2004).

Timecode

Timecode value is updated on a control panel display once every five video frames, which may give the frame display the appearance of being jumpy (this is normal).

The system time code (which is intended as the source of the real-time on-air clocks), can be derived from one of three sources as follows:

- Press the **LTC** soft button to select the input LTC as the time code source.
- Press the **DCF** soft button to select the input DCF as the time code source.
- Press the **# Set Int.** soft button to select an internal time code counter as the time code source. This counter is reset to zero when IconLogo is powered up. It counts in frames, synchronous to the video reference supplied to the selected video reference input.

If using the internal time code source, to reset the time code to any valid time code value, follow these steps to enter a new value:

1 Enter the frames (FF); or seconds and frames (SS:FF); or minutes, seconds, and frames (MM:SS:FF); or hours, minutes, seconds, and frames (HH:MM:SS:FF), using the colon character (":") as the delimiter.

2 Press the **#Set Int** soft button.

Time code entry precedence is as follows:

- Entering a single valid value in the range (0-24 for 625-line or 0-29 for 525-line video) will change the entire time code value to 00:00:00:FF – where FF is the value entered.
- Entering two valid values, delimited by the ":" key, will change the seconds and frames of the time code.
- Entering three valid values, delimited by the ":" key will change the minutes, seconds and frames of the time code.
- Entering four valid values, delimited by the ":" key will change the hours, minutes, seconds and frames of the time code.

- Entering a single value larger than the permitted number of frames per seconds for the current video standard will result in the value being taken as frames and converted into time code (so, for example, in 525-line, a value of 203 will result in the time code being set to 00:00:06:23).

T/C Offset

Whenever a non-zero offset is present, the time displayed on on-air clocks, will be offset from the input time code. Each individual clock, does however have its own offset, so that clocks for different time zones can be created and called up without having to alter the system parameters.

When an external time code source is used as the time source for on-air clocks, it is possible that the real time may be offset from the time required to be transmitted (it may for example pass through a large delay before being transmitted, or it may be transmitted to a different time zone). In such cases the time code offset parameter, allows the user to alter the time used between the on-air clocks in either advance (positive offset) or behind (negative offset), the input time code.

To enter an offset in advance of the time code (positive offset), follow these steps:

1. Enter the required time code (for setting internal time code, use the precedence rules as described above).
2. Press the # **TC OffSet** button.

Press the "+/-" key to toggle the typed-in value between + and –.

To enter an offset behind the input time code (negative offset), follow these steps:

1. Enter the offset in advance of the time code (as described above).
2. Press the **Offset +/-** soft button to change its polarity.
3. Alternatively, enter the value preceded by the "+/-" key from the keypad, then press the # **TC OffSet** soft button.

Temperature

On-Air digital clocks may be displayed with or without a temperature value. This temperature value may be derived from an external probe (available as an option) or entered manually.

To select the temperature source, follow these steps:

1. Press the **Ext. Probe** soft button to select the external probe as the temperature source. (If this option is selected when the probe is not connected, the temperature will always show zero degrees centigrade 0°C or thirty-two degrees Fahrenheit 32°F.)
2. Press the # **Manual** soft button to select the manually entered temperature value.

To change the manually entered value, follow these steps:

1. Enter the value in centigrade (to the nearest 1/10th of a degree).
2. Press the # **Manual** soft button.

As practical locations for the temperature probe may produce a variation between the temperature read and the actual temperature, an offset (positive or negative) may be entered. The offset can be set to an accuracy level of 1/10th of a degree centigrade (even though the temperature shown on-air might only be shown to the nearest degree).

To enter the offset, follow these steps:

1 Enter the required offset (preceded by the +/- key for negative offsets).

2 Press the **# Probe Offset** soft button.

Automation

For systems that do not require automation, or on which the automation system needs to be overridden manually due to change in schedules or errors in scheduling, the automation input to IconLogo needs to be disabled.

To change the state of the automation input, follow these steps:

- Press the **Disable** soft button to disable automation.
- Press the **Change** soft button, and then make one of the following selections:
  - GVG **M2100** is not implemented at this time.
  - Select **MGI** to enable the MGI automation protocol.
  - Select **PBus** to configure the parameters for the Peripheral Bus.

To configure the parameters for the peripheral bus, follow these steps:

a Press the **Config** button.

b Make one or more of the following selections:

- To change a device ID that IconLogo will respond to:
  - Enter the required offset (integer value from 0-23).
  - Press the **# Device ID** button.
- To select a baud rate of 9600, 19200, 38400, 57600, 76800, or 115200, press the **Change Baud** button.
- To select Even, Odd, or No Parity, press the **Change Parity** button.
- Press **Exit...** to return to the Engineering Set-Up menu page.

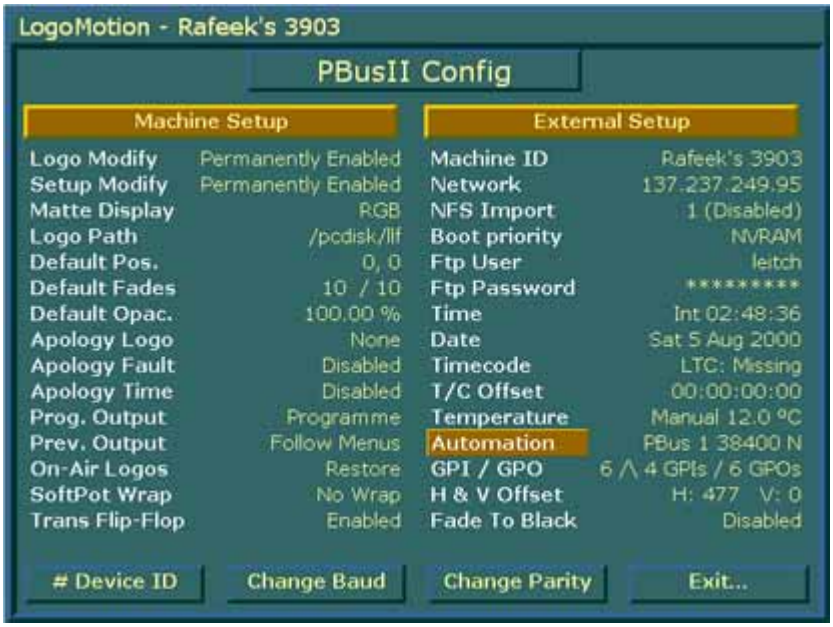


Figure 6-30. Peripheral Bus Configuration

GPI/O

IconLogo has 12 general purpose inputs (GPIs) and 6 general purpose outputs (GPOs). Each of these needs to be configured before it is active. The GP I/O submenu selection shows the numbers of each which are active (that is, have functions assigned to them) and also allows access to the GPI and GPO setup submenus.

To enter the GPI setup menu, follow these steps:

- Choose one of the following options:
  - Press the **GPI Setup...** soft button to setup a GPI on the rising edge.
  - Press the **GPI Fall.Edge** soft button to setup a GPI on the falling edge.
  - Press the top soft pot button and rotate it to select GPI Setup or GPI Fall.Edge, then press it again.

Each GPI selection needs to be set up individually, as follows:

1. Select GPI 1 – GPI 12 as required, using the soft pots.
2. Make one of the following selections:
   - Repeatedly press the **#Select/Next** soft button until the desired selection appears.

     OR
   - Press the bottom soft pot and rotate to select the required selection, then press it again.

     OR
   - Enter the numerical value of the function you require, then press **# Select /Next** to accept the function. Function selections are as follows:
     - #0 Disabled
     - #1 Clear Layer n
     - #2 Fade Logo m on Layer n
     - #3 Cut Logo m on Layer n

- #4 Fade Up Layer n
- #5 Fade Down Layer n
- #6 Cut on Layer n
- #7 Cut off Layer n
- #8 Anim/Audio Start on Layer n
- #9 Anim/Audio Stop on Layer n
- #10 Anim/Audio Rewind on Layer n#11 Take Layer n
- #12 Cut Layer n
- #14 Fade to Black
- # 15 Master Fade
- #16 Activate Relay Bypass
- #17 Deactivate Relay Bypass
- #18 VB Man. Control On
- #19 VB Man. Control Off
- #20 VB Control Disabled
- #21 VB Control Enabled
- #22 Fade Logo Off Layer
- #23 Cut Logo Off Layer

Some functions require a layer and/or logo to be selected (for example, "Fade Down Layer 2").

To select logo or layer, follow these steps:

1. Ensure the correct function has been selected (as described above).
2. Enter the layer number or logo number on the keypad.
3. Press the **# Layer** (or the **#Logo**) soft button as appropriate.

To enter the GPO set-up menu, follow these steps:

- Press the **GPO Setup…** soft button.

  OR
- Press the top soft pot button and rotate it to select the GPO Setup, then press it again.

Each GPO selection needs to be set up individually as follows:

1. Select GPO 1 – GPO 6 as required, using the bottom soft pot.
2. Make one of the following selections:
   - Repeatedly press the **#Select/Next** soft button until the desired selection appears.

     OR
   - Press the bottom soft pot and rotate to select the required selection, then press it again.

     OR
   - Enter the numerical value of the function you require, then press **# Select/Next** to accept the function. Function selections are as follows:
     - #0 Disabled
     - #1 Layer n On Air
     - #2 Logo m Layer n
     - #3 Faded to Black
     - #4 Master Fader Down
     - #5 Anim/Audio Run Layer n
     - #6 Auto Apology On Air

- #7 In Manual Control
- #8 Flash Disk Missing
- #9 Fill Input Missing
- #10 Key Input Missing
- #11 Prog Input Missing
- #12 Ref. Input Missing
- #13 Timecode Input Missing
- #14 Sync Input Missing
- #15 Brandnet
- #16 Brandnet
- #17 BO Relay Bypass (valid only for GPO 1 when using the ICONL-BO in relay bypass mode)

Some functions require a layer and/or logo to be selected (for example, "Layer 2 On Air").

To select logo or layer, follow these steps:

1. Ensure the correct function has been selected (as described above).
2. Enter the layer number or logo number on the keypad.
3. Press the **# Layer** (or the **#Logo**) soft button as appropriate.

H & V Offset

The horizontal and vertical timing offset from the selected reference may be adjusted either manually or automatically. This allows the unit to compensate for signal processing delays in upstream equipment. The offset will always be positive relative to the selected reference.

CAUTION

Adjusting H and V is inherently a destructive operation. Adjusting this setting may cause the outputs to lose lock. This parameter should only be adjusted when a machine is not on-air.

When locked to External Genlock (reference) in either Auto (Ref) or Ref, the horizontal (H) and vertical (V) timing offset may be adjusted either manually or automatically. This allows the unit to compensate for signal processing delays in upstream equipment. Both H and V offsets will always be positive relative to the selected reference.

It is important to note that technically there is only one correct V value for a system: the V value that aligns the video output to the external reference (if used). All other V values will cause the blanking to appear in the middle of active picture, and thus potentially disrupt logos.

Horizontal, or H, is measured in terms of sample clocks making up a video line (for example, H varies from 0 to 1715 clocks in SD-525 which includes both the ancillary and active picture space). Since the MGI features a line buffer, adjusting H adds that amount of sample delay to the overall system.

Vertical, or V, is measured in terms of lines. There is no frame buffer inside the MGI, so adjusting V simply controls the insertion/change of the V bit for the outgoing video stream.

- ***To adjust H and V offset,*** type in the required offset in either samples or lines, then press either the # **Horizontal** or # **Vertical** soft buttons.
- ***To automatically select the H & V offset*** on the IconLogo, press the **Auto Align** soft button.

Fade-To-Black

If the Fade-To-Black feature is required, it must be enabled here. The button for Fading to Black will only appear in the On-Air menu if this item is enabled. Fade-To-Black can also be triggered from GPIs (again only if this item is enabled).

- Press the **Enable** soft button to enable fade to black.
- Press the **Disable** soft button to disable fade to black.

Setup Menu (Cont.) Page

Further setup items and the machine's status are shown in this menu. *To select this menu*, press **More...** from the main Engineering Setup page. It displays the following parameters:

- More setup parameters
- Parameters that change as an indirect consequence of user action (such as percentage of disk space used)
- Parameters that may change without user interaction (such input status)

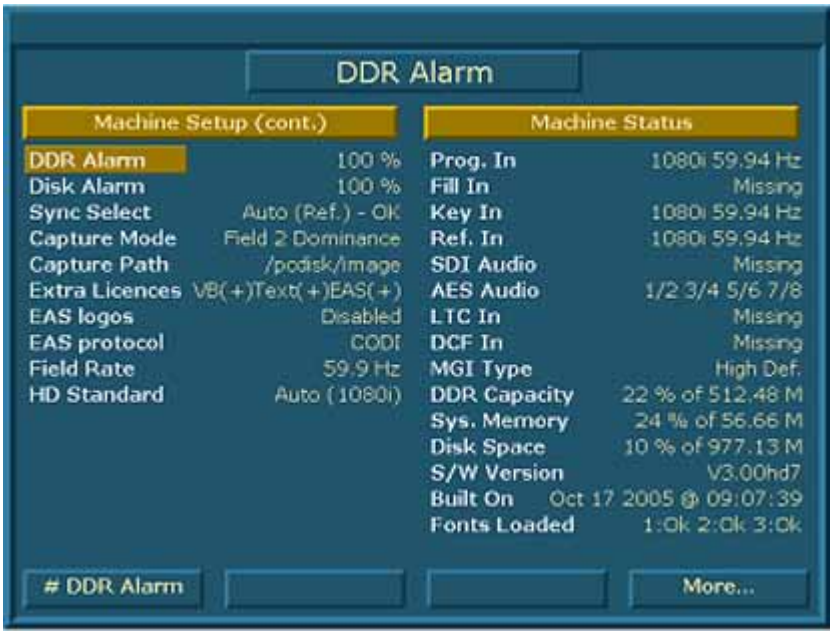

DDR Alarm
Machine Setup (cont.)
DDR Alarm 100 %
Disk Alarm 100 %
Sync Select Auto (Ref.) - OK
Capture Mode Field 2 Dominance
Capture Path /podisk/image
Extra Licences VB(+)Text(+)EAS(+)
EAS logos Disabled
EAS protocol CODI
Field Rate 59.9 Hz
HD Standard Auto (1080i)
Machine Status
Prog. In 1080i 59.94 Hz
Fill In Missing
Key In 1080i 59.94 Hz
Ref. In 1080i 59.94 Hz
SDI Audio Missing
AES Audio 1/2 3/4 5/6 7/8
LTC In Missing
DCF In Missing
MGI Type High Def.
DDR Capacity 22 % of 512.48 M
Sys. Memory 24 % of 56.66 M
Disk Space 10 % of 977.13 M
S/W Version V3.00hd7
Built On Oct 17 2005 @ 09:07:39
Fonts Loaded 1:Ok 2:Ok 3:Ok
DDR Alarm
More...

Figure 6-31 Setup Menu (Cont.)

DDR Alarm

The DDR Alarm parameter allows you to set a CCS alarm when the available DDR memory usage exceeds a given threshold. This threshold is set as follows:

1 Enter the percentage (1% –100%) at or above which the alarm is to register.

2 Press the **# DDR Alarm** soft button.

You may clear this alarm only by increasing the threshold or by deleting logos to reduce the logo store usage.

Disk Alarm

The Disk Alarm parameter allows you to set a CCS alarm when the compact flash disk capacity exceeds a given threshold. This threshold is set as follows:

1 Enter the percentage (1% –100%) at or above which the alarm is to register.

2 Press the **# Disk Alarm** soft button.

Sync Select

The Sync Select parameter sets the sync source and displays its current status. When the selected sync source is not present, the IconLogo unit will free-run at 60 frames per second and operate in 525 standard mode.

You may set the source to one of the following options:

- **Auto** selects auto sync selection.
  - If external reference is present, the system will lock to it.
  - If external reference is not present, the system will lock to program input.
- **Prog/Ref.** selects, alternately, Program and Reference input as sync source.
  - If program is selected, the system will only lock to program input.
  - If reference is selected, the system will only lock to external reference.
- **Fill/Key** selects, alternately, Fill and Key input as sync source.
  - If Fill is selected, the system will only lock to the fill input.
  - If Key is selected, the system will only lock to the key input.

Capture Mode

This option is reserved for future use.

Capture Path

When Fill and Key and/or Audio are captured into a logo, the resulting material can be saved to disk (either Compact Flash or NFS exported file system with write permission enabled). The files are stored in a new directory (for example, “grab1” for logo 1 capture) under the path entered under the Capture Path parameter.

The path used as the root path for saving the material is shown and altered here.

To set or change the capture path, follow these steps:

1 Press the **Change...** soft button.

2 Enter the new path.

3 Select one of the following options.

- Press the **Enter** soft button to accept the new path.
- Press <**Enter**> on the keyboard to accept the new path.

- Press the **As Before** soft button to stay in edit mode, but enter the previous path as a starting point.
- Press the **Clear** soft button to clear the currently entered text.
- Press the **...Cancel** soft button to cancel the operation and revert to the previous path.

VB Control

The VB control parameter enables and selects layers for the Vertical Blanking Machine control. The VB Control parameter is for SD only.

A special encoder is required to allow this feature to become operational. For details please contact Customer Service.

VB Lines

A special encoder is required to allow this feature to become operational. For details please contact Customer Service.

Instant Clocks

The Instant Clocks parameter boosts the priority of up to 2 clocks to frequently used clocks. The clocks will be available to be put on air at any given time.

To set the clock logo number, enter the logo number on the keypad, and then press either the **# Logo 1** soft button or the **# Logo 2** soft button.

Extra Licenses[1]

A special encoder is required to allow this feature to become operational. For details please contact Customer Service.

EAS Logos

EAS Protocol

VB Triggers

A special encoder is required to allow this feature to become operational. For details please contact Customer Service.

Field Rate

The Field Rate reports the field rate of the output.

Vid Standard

The IconLogo can detect the high definition standard from a selected sync source. The machine will normally be configured for the standard detected from the sync source. However, when the reference is a standard definition (525 line) reference, the machine will be configured to be the same standard as the program input.

Where the machine is operating in Fill and Key mode, there is no program input, and the reference is standard definition (525 line) reference, chose between 1080 interlaced and 720 progressive standards. The options are as follows:

- [**Auto**] – Automatically sets the system high definition standard as follows:
  - With high definition sync source, the system standard is the same as the sync source.
  - With standard definition analogue reference as the sync source and no programme input present, you must chose one of the other two options.
- **Change Standard** – allows you to manually set the system to standard to Auto, 525 59.94 Hz, 625 59 Hz, 720p 59.94 Hz, 720p 50 Hz, 1080i 59.94 Hz, and 1080i 50 Hz

Machine Status Menu Page

The next setup menu page provides status information for various items.

Prog. In

The Prog. In parameter displays the program input status.

- **OK** – Program input present and has no errors
- **EDH/CRC Error** – Program input present but has an EDH or CRC error
- **Missing** – No program input present

Fill In

The Fill In parameter displays status fill input status.

- **OK** – Fill input present and has no errors
- **EDH/CRC Error** – Fill input present but has an EDH or CRC error
- **Missing** – No fill input present

Key In

The Key In parameter displays the key input status.

- **OK** – Key input present and has no errors
- **EDH/CRC Error** – Key input present but has an EDH or CRC error
- **Missing** – No key input present

Ref. In

The Ref. In parameter displays the reference input status.

- **OK** – Reference input present
- **Missing** – No reference input present

SDI Audio

The SDI Audio parameter shows the status of the selected embedded audio contained within the program input. Available channel pairs are shown as follows:

- **1/2 3/4** – embedded group 1
- **5/6 7/8** – embedded group 2
- **9/10 11/12** – embedded group 3
- **13/14 15/16** – embedded group 4
- **Missing** – the selected group is not available

AES Audio

The AES Audio parameter shows the status of the AES inputs. If no AES inputs are present, the status will indicate **Missing**.

LTC In

The LTC In parameter shows the status of the LTC time code input as **OK** or **Missing**.

DCF In

The DCF In parameter shows the status of the DCF time code input as **OK** or **Missing**.

MGI Type

The MGI Type parameter shows the signal type for the machine in use.

- **Std. Def.** – standard definition
- **Hi. Def**. – high definition
- **Analog**[1]

1. This parameter does not apply in the IconLogo configuration.

DDR Capacity

The DDR Capacity parameter shows the total available and the percentage usage of the video/audio store used for holding logos. A CCS alarm is available to flag when this parameter exceeds a user-preset threshold.

Sys. Memory

The Sys. Memory parameter shows the total available and the percentage usage of the processor memory.

Disk Space

The Disk Space parameter shows the size of the compact flash disk and percentage of it that has been used.

S/W Version

The S/W Version parameter shows the version of the software installed on the machine.

Built On

The Built On parameter shows the date and time of the build for the machine's software and firmware.

Fonts Loaded

The Fonts Loaded parameter shows status of currently loaded fonts.

Functional Diagram — AES Audio Processing

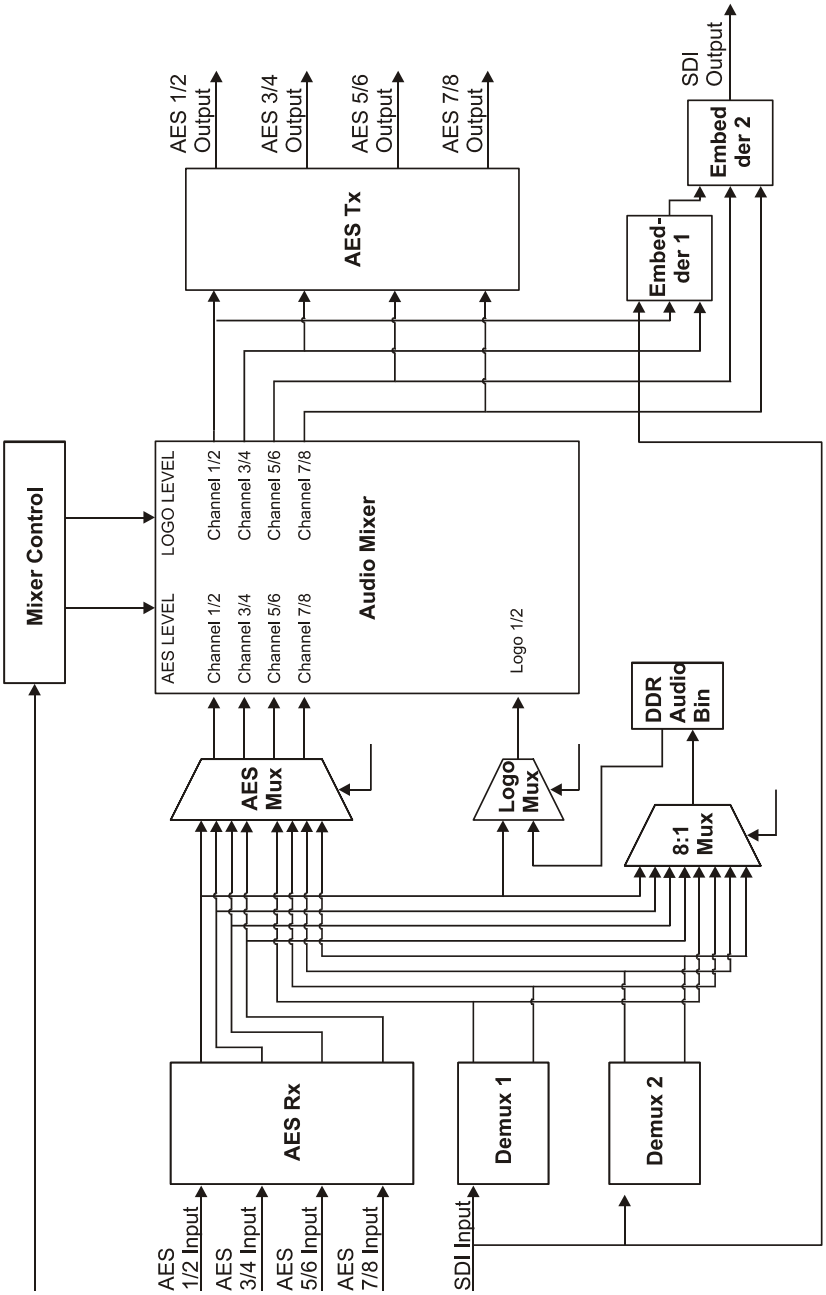


Figure 6-32. IconLogo AES Audio Processing Functional Diagram

Audio Menu Page

The Audio menu page shows the audio setup for IconLogo. Under normal operation, audio passes through IconLogo unaltered. Input audio is derived from the selected SDI embedded group or from the AES inputs. Output audio can be re-embedded into the SDI program output and is always present on the AES outputs. Any logo can have audio associated with it (see "Navigating the Logo Menu" on page 56). The logo audio is mixed with the program audio at levels you determined in the Logo Set-Up menu. During audio playback, the main program Audio level can be "ducked" to allow the logo audio to be heard more clearly (for example, when used as a voiceover).

Logo audio is normally derived from audio files (.WAV or .AIFF) and loaded into the system's DDR2 storage. However, where the master audio source is taken from the SDI embedded source, the logo audio may optionally be taken from the AES input, thus providing the voiceover capability available normally on the master control.

Navigation on the Audio Menu page is the same as for the main Engineering menus, except that only the top half of the screen has items which may be selected and altered. The bottom section of the menu shows status of the SDI embedded and the AES inputs.

Figure 6-33. Audio Menu Page

Master Audio

This selection determines the source of the master audio input.

- Press the **Embedded** soft button to select SDI embedded audio as the master input.
- Press the **AES** soft button to select the AES audio as the master input.

Resampler

This selection enables or disables audio sample rate converters on the AES inputs. This must be used when the AES inputs are not locked to the selected IconLogo reference, or for any audio whose sample rate is not 48KHz.

- Press the **On** soft button to enable the AES resampler.
- Press the **Off** soft button to disable the AES resampler.

Channel 1/2, 3/4, 5/6, 7/8

These four menu items select, for each pair of audio channels in the system, which channels will have the logo audio mixed over the top of them. They also allow audio to pass unaltered through the system (the unity selection) so that compressed audio can pass through the system.

These selections can be overridden by the settings for Audio Ch 1/2, 3/4, 5/6, 7/8 in the Logo Menu. (See page 69 for more information.)

For each pair of channels, choose one of the following selections:

- Choose the **Unity** selection to pass audio through the system without any processing (used for compressed channels). Unity channels will neither be ducked or have logo audio mixed with them.
- Choose the **Logo+Duck** selection to duck the master audio source on these channels and mix logo audio over the top while logo audio playout is taking place.
- Choose the **Duck Only** selection to reduce the level of master audio during logo audio playout without mixing the logo audio with the master audio.

Embed on Preview

This menu item selects whether the program audio output is embedded onto the preview output.

- Press the **On** soft button to enable embedded audio onto the preview output.
- Press the **Off** soft button to pass what was originally on the program input to the preview output.

Demux 1/2

SDI embedded audio consists of four groups, each consisting of two channels. IconLogo can process eight channels of audio, so two of the four groups can be selected as the embedded audio source. (Demux 1 feeds audio channels 1-4 and demux 2 feeds audio channels 5 to 8.) For each of these menu items, select between **Group 1**, **Group 2**, **Group 3**, and **Group 4** soft buttons.

Emb. Packing

The processed audio, when it is re-embedded onto the program output, can be packed either in Sony®[1] (where audio data is embedded on every line) or SMPTE (where audio data is not embedded during lines 5 to 8 for PAL and 9 to 12 for NTSC) modes. Select the appropriate soft button for the mode required.

The Emb. Packing parameter is for SD only.

Emb. 24 Bit

The processed audio, when it is re-embedded onto the program output, can be embedded in 24 bit mode. Select one of these soft buttons:

- Choose the **On** soft button to enable 24 bit packing.

  The Emb. 24 Bit parameter is for SD only.

1. “Sony” is a registered trademark of Sony Corporation in the United States and/or other countries.

- Choose the **Off** soft button to disable 24 bit packing.

CAUTION

When embedding 24-bit audio with 525 standard video, you must be careful when the existing SDI input already has two groups of embedded audio. If the existing audio is also 24-bit and none of the groups are to be replaced, then not enough space will be available in the horizontal blanking period for four 24-bit groups. In this case, we recommend that the MGI audio be embedded in 20-bit resolution.

Emb. Mode

The processed audio, when it is re-embedded onto the program output, can be embedded in one of four modes: Normal, Clean+Embed, Clean, and Bypass.

- **Normal** packs new embedded audio data after existing embedded data. Press the **Normal** soft button to select normal packing mode.
- **Clean+Embed** removes any existing embedded data and embeds new audio data. Press the **Clean+Embed** soft button to select Clean + Embedded mode.
- **Clean** removes any existing embedded data and does not embed any new data. Press the **Clean** soft button to select Clean mode.
- **Bypass** passes existing embedded data and does not embed any additional data. Press the **Bypass** soft button to select Bypass mode.

Audio is always embedded "left justified."

Embed 1/2

The processed audio, when it is re-embedded onto the program output[1], is embedded onto the first two groups. These menu selections allow the user to select which input groups are re-embedded onto each of the available output groups.

- For Embedder 1 – a group must be selected, but it must not be the same as selected for Embedder 2 output.
- For Embedder 2 – a group that is not used on the Embedder 1 output may be selected; alternatively, **None** may be selected if no Embedder 2 audio is to be embedded.

AES Status

These items show the presence of AES audio input on each pair of channels.

Embedded Status

These items show the presence of SDI embedded audio input for each pair of channels.

EAS Logos Menu

The EAS Logos menu allows you to prepare logos for EAS message insertion. An IconLogo can be connected directly to an EAS encoder/decoder or character generator, thus enabling you to insert emergency notification messages directly into the broadcast stream as a regular scrolling text crawl. An external EAS receiver is required to allow this feature to become operational. For details, please contact Customer Service.

Upon completion of these preparatory procedures, the EAS/IconLogo setup will operate automatically. See page 159 for more information about system operation.

An external EAS receiver is required to allow this feature to become operational. For details please contact Customer Service.

Enabling the License Key

You must have purchased this option to obtain a license key. One license key will enable all of the purchased options.

Before you enable the EAS communication feature, make sure you have obtained an appropriate license key. You will need to provide Customer Service representative with the serial number of your MGI-3903 module. (You can find out the serial number of your MGI module by pressing the **# Key** while in the **Extra Licenses** field. The number will be displayed on the IconLogo screen.) You will also need Text Crawl feature enabled (see "Text Crawl and Titling" on page 81).

Extra Licences
Machine Setup (cont.)
DDR Alarm 100 %
Disk Alarm 100 %
Sync Select Auto (Ref.) - OK
Capture Mode Field 2 Dominance
Capture Path /pcdisk/image
Extra Licences VB(+)Text(+)EAS(+)
EAS logos Disabled
EAS protocol CODI
Field Rate 59.9 Hz
HD Standard Auto (1080i)
Machine Status
Prog. In 1080i 59.94 Hz
Fill In Missing
Key In 1080i 59.94 Hz
Ref. In 1080i 59.94 Hz
SDI Audio Missing
AES Audio 1/2 3/4 5/6 7/8
LTC In Missing
DCF In Missing
MGI Type High Def.
DDR Capacity 22 % of 512.48 M
Sys. Memory 24 % of 56.66 M
Disk Space 10 % of 977.13 M
S/W Version V3.00hd7
Built On Oct 17 2005 @ 09:07:39
Fonts Loaded 1:Ok 2:Ok 3:Ok
#Key
More...

Figure 6-34 Extra Licenses Menu

In the IconLogo control panel:

1. Select **Eng**.
2. Press the **More** button to access additional choices.
3. Select **Extra Licenses**.
4. Press the **# Key** button.
5. Enter the license key provided by your Customer Service representative.

"The option is now active" message will display on the bottom left of the screen and (+) will show after EAS in the Extra Licences parameter to indicate that EAS has been enabled.

Configuring an MGI-3903 to Work with EAS Devices

1 Select **EAS Protocol**.

2 Choose the protocol used by your EAS device (TFT, Sage, or GR).

3 Select **EAS Logos**.

EAS logos
Machine Setup (cont.)
DDR Alarm 100 %
Disk Alarm 100 %
Sync Select Auto (Ref.) - OK
Capture Mode Field 2 Dominance
Capture Path /pcdisk/image
Extra Licences VB(+)Text(+)EAS(+)
EAS logos Disabled
EAS protocol CODI
Field Rate 59.9 Hz
HD Standard Auto (1080i)
Machine Status
Prog. In 1080i 59.94 Hz
Fill In Missing
Key In 1080i 59.94 Hz
Ref. In 1080i 59.94 Hz
SDI Audio Missing
AES Audio 1/2 3/4 5/6 7/8
LTC In Missing
DCF In Missing
MGI Type High Def.
DDR Capacity 22 % of 512.48 M
Sys. Memory 24 % of 56.66 M
Disk Space 10 % of 977.13 M
S/W Version V3.00hd7
Built On Oct 17 2005 @ 09:07:39
Fonts Loaded 1:Ok 2:Ok 3:Ok
EAS text logo
EAS QuickSelect
Disable EAS
More...

Figure 6-35 EAS Logos Menu

You can still choose logo numbers for Text and Quick Select, even if they are not configured yet, and configure them later. However, if you operate the EAS before these items are configured, an erroneous ON AIR output message will result. .

4 Enter the logo numbers for **EAS Text** and **EAS Quick Select.** (**EAS Text** and **EAS Quick Select** are described on page 118.)

5 Alternatively, you can disable EAS by pressing the **Disable** button.

Preparing Logos for EAS Message Insertion

To insert EAS messages in the broadcast stream you must prepare a set of three logos: a text crawl, a Background logo, and a Quick Select logo.

- **Text crawl:** The text crawl is the actual text "box" into which EAS message will be inserted. Properties such as font type, position, etc., can be set according to your preferences. (See "Text Crawl and Titling" on page 81 for information on setting up a text crawl.)

  Beginning on page 84, a number of important text crawl parameters are listed.

  - **In. Pos/Pause** should be set to **Rwnd** (always starts crawl at the beginning).
  - **Wrap around** should be set to **Crawl Out. Repeat** should be set to **3** (stops the crawl after three iterations).

- **End Action** should be set to **Take Next Logo** (when the crawl stops, the background will be taken off as well).

The EAS message text will be decoded by the IconLogo and inserted as the text of the assigned logo. If text has been manually entered into the Text Crawl, it will be overwritten by the decoded text.

- **Background logo:** The Background logo is the background layer for the displayed message (Optional).
- **Quick select logo:** The Quick select logo contains a macro that tells the IconLogo what to do when an EAS message arrives.

A macro is series of commands and instructions that you group together as a single command to accomplish a task automatically.

The macro specifies the text crawl and the background layer. It is recommended that you put the text crawl on layer 1, and the background logo on layer 2. Layers 3 and 4 are not required (see "Text Crawl and Titling" on page 81).

Make sure that the text crawl specified in Quick Select macro corresponds to the text crawl selected in the **EAS Logos** item of **Eng** menu.

Disabling EAS Messages

If you want to disable the EAS:

1. Select **Eng**.
2. Press **More** to access additional choices.
3. Select **EAS Logos**.
4. Select **Disable EAS**.

7 Operation

IconLogo Operation Workflow

Logo Storage and Loading

At power-up, all previously-created logos are loaded from disk (local and/or network) into the large on-line graphics and audio stores on IconLogo's main board. These remain on-line and instantly accessible at all times. For more information about creating logos, see **Chapter 6**.

Since IconLogo has such a large on-line store for both graphics and audio, 999 logo "slots" have been made available for instant recall.

If many different sets of up to 999 logos are required in this way, we recommend that you set up a remote file server running NFS over the 100Base-T network. This allows IconLogo high-speed access to large shared storage. The server may be a PC using either a Microsoft Windows operating system or a UNIX-based system (see ***Network File System (NFS)*** on page 124).

Alternatively, in a non-networked system, we recommend that you use different compact flash cards for each logo set, or that you use a larger compact flash card and separate directories created for each logo set.

If many large animations and full screen clocks are stored, there may not be enough room for 999 of them. System warnings and the status display in the Engineering menu give the user indications that the storage is nearing full capacity.

Each of these 999 logo slots can be one of five basic types:

- Static logos
- Animated logo (which may also be full-screen clips)
- Analog clock
- Digital clock (with or without temperature display)
- Quick select
- Text crawl and titling

A Logo Definition File is created internally for each logo created. This file contains all the information about the logo (in a readable text format). Logo Definition Files are kept by default in the compact flash card in the */pcdisk/llf* directory. You can change location of these files from the Engineering menu on the control panel. In this way many different sets of up to 999 logos can be created and maintained for on-line access. You will not need to view or modify these files (and we recommend that they are only modified by IconLogo), but you should be aware of their existence to understand how the system works.

After you create a logo, the graphics files used to create it must be accessible to IconLogo during power-up and when any changes are made to it.

Logos may be altered from the Logo Menu at any time *except* when they are on air. (View access to the Logo menu is available at all times, but to modify or create a logo, the locking mechanism in the Engineering Menu needs to be disabled. For details see ***Navigating the File Menu*** on page 96.) This requires that the source of the graphics and audio files and the directory containing the Logo Definition Files (either compact flash card or network file system) must be available whenever changes are made.

Logo Storage and Transfer Options

Several different file storage options are available with the IconLogo IconLogo modules. These storage options include the following:

- Compact Flash (see page 122 for a description)
- LogoTransfer Utility (see page 123 for a description)
- File Transfer Protocol, or FTP (see page 123 for a description)
- Network File System, or NFS (see page 124 for a description)
- Using IconLogo as an NFS client (see page 125 for a description)

Compact Flash Storage

IconLogo's file system is contained on a removable compact flash card[1] that is located in a socket on the front of the lower board in the IconLogo system. The file system on this card is compatible with the MS-DOS® operating system and, with the use of a compact flash PCMCIA adapter, files may be transferred directly on and off the card with a PC. This process can be performed safely when IconLogo is in operation because all data is read from the card when the machine is powered up. The only time the card is read after power-up is if new logos are created or others modified. *The card must always be in place when the machine is powered up.*

This system, while perfectly adequate for installations where logos are not frequently updated, will not suit busier systems where logos may be required to change daily or even be updated during programs. For this reason, the file system on the compact flash card is networked. See ***IconLogo Representative Storage Capacity*** on page 155 for information concerning the storage capacities of various DDR2 modules that can be used with the IconLogo.

Networking the file system provides the user with several options for transferring files on and off the compact flash card and even provides the opportunity to have many IconLogo units sharing the same graphics files and logos. The various options are described in this appendix for users who wish to take advantage of the flexibility the networked system offers.

[1] While any compact flash card may be used for storage, we specifically recommend those manufactured by IBM, Fuji, Sandisk, and Lexar.

LogoTransfer Utility

This Windows plug-in allows for IconLogo systems to be represented as folders. The contents of this folder are the logs currently on the system. Transfer occurs with common file drag and drop functionality. Combined with the IconSoft Tools LogoCreator software, logo file transfer times are improved significantly. IconSoft Tools LogoCreator software allows for conversion of image files to an mg2 format file (see Chapter 4: "LogoCreator Software Application").

File Transfer Protocol (FTP)

The IconLogo system supports standard File Transfer Protocol, or FTP. This uses an FTP application on a host computer (Microsoft Windows operating systems, MS-DOS, or UNIX) to transfer files directly onto the compact flash from the host computer. In this way, your system still has all logos and graphics files stored on the compact flash, but allows faster and remote file transfer using a standard 100Base-T network.

The FTP protocol requires the operator to have a user name and password for the remote system (in this case IconLogo). IconLogo has a default user name and password but these may be changed from the Engineering menu.

The case-sensitive defaults are as follows:

- **User Name**: leitch
- **Password**: LeitchAdmin

CAUTION

You should change the user name and password from the defaults after the system has been installed, as the system provides no other protection from files being overwritten or deleted using FTP.

The following example shows how to FTP files onto the IconLogo compact flash by using an MS-DOS window.

1. At a DOS prompt, start FTP on your PC from the directory the required logo image files are stored.
2. Type the following FTP command (where **LogoMachine** is the IP address of the IconLogo; for example 192.168.117.82):

   > ftp 192.168.117.82
3. Enter a user name and password when prompted. (You can change these from the Engineering menu.) The defaults are user name **leitch**, password **LeitchAdmin**.
4. Move ftp into the directory you want your images (image directory of the compact flash is best):

   > cd /pcdisk/image
5. Put into binary mode:

   > bin
6. Turn hash printing on:

   > hash
7. Transfer a file:

   > put myImage.bmp
8. Continue until all images are transferred.

9 To end the session, type

> quit

At any stage you can change the local directory (where the images come from on your machine) by typing this command:

> cd C:/otherdir/animations

Other commands that may be useful are shown in **Table 7-1**.

Table 7-1 Additional FTP Commands

Command	Description
> is	Gives a list of subdirectories and files in the current directory
> mput	allows you to copy multiple files from the local machine to the remote machine (you will be prompted for a y/n answer before transferring each file
> delete	Allows you to delete a file
> help	Allows you to request a list of all available FTP commands (for example, **help is** would give specific help on the dir command)

Network File System (NFS)

Most people who regularly use PCs are familiar with the concept of sharing data on a network by being able to see an exported disk or directory on a remote machine. The most common operating systems for PCs are the Microsoft Windows operating systems. These use a mechanism whereby any machine on a network can "share" a directory or even a whole disk, so that others may share the files within it.

IconLogo provides a different network file sharing protocol called NFS, or Network File System. It works in the same way as the Microsoft operating systems, but the two systems are incompatible. The NFS protocol was first created for sharing file systems across computers running the UNIX operating system and works on all UNIX and Linux®[1] systems. NFS software packages are available for PCs running Microsoft Windows operating systems. These are generally known as PC-NFS. They allow files systems exported from other machines to appear on a PC as a new drive with a drive letter (for example, G:). The G: drive will allow access to the files on the remote system as if they were local to the client machine, so file browsers (such as Microsoft Windows Explorer) allow drag-and-drop of files as well as the capability to copy and rename files. Also, the files on the remote system can be pulled into any application that supports their format (graphic image viewers being the most appropriate in the case of files exported from IconLogo).

NFS is a client-server protocol, which means a server "exports" a file system on its network for other to see and any number of "clients" can view it or use it. In UNIX terms, the remote file system exported from a server is "mounted" on the client. The NFS system in IconLogo can be configured as a client.

[1] "Linux" is a registered trademark of Linus Torvalds, the original author of the Linux kernel.

IconLogo as NFS Client

When IconLogo imports the NFS exported file systems of networked computers, the system suddenly becomes a lot more flexible. Logos can be created on IconLogo whose graphic image files reside on a remote server. This server can be a PC running PC-NFS, a UNIX machine, or a PC running the Linux operating system. In this way, the IconLogo creates logos using files that reside on another system and do not need to be copied or transferred onto its flash card. This provides the user with a system that has almost limitless capacity and fast network access to the graphics creation machines. It also allows many IconLogo systems to share the same graphics files.

Using NFS import can slow the system down if the remote NFS server is not "mounted" or is off-line. If the NFS server becomes disconnected from the network for any reason, the NFS import should be disabled. Once connection is re-established, NFS may be re-enabled.

There is another capability with using IconLogo as an NFS client: changing the path of repository for the logo definition files to the remote server. This can be done simply by entering the new path in the Engineering directory. In this way, multiple channels of IconLogo can share the same graphics files and the same logo definition files. Further, it provides the opportunity to have multiple Logo sets (of up to 999 logos each) to be stored on the server for all IconLogo systems on the network to share. In this way different logo sets can be defined for different channels, or different days programming on the same channel or even change over between programs. In short, running NFS on IconLogo as a client provides the best system for storage capacity, speed of Logo creation, and system flexibility.

NFS Server PC Configuration

1. Download and install and NFS server product for Microsoft Windows. There are several third-party products available (for example, DiskShare™[1] [www.accessnfs.com/nfs]).
2. In Windows Explorer, right-click on a folder you would like to "export" (for example c:\MyFolder). A menu will pop up.
3. Select the "Sharing" menu item. The **MyFolder Properties** dialog will be displayed.
4. Select the "NFS sharing" tab.
5. Select the "shared as" radio button, and then enter **/pcdisk** as an alias name.
6. Click **Configure** (make sure that the Allow Anonymous Access check box is selected).

Setting Up the System to Create Logos Locally But Using Graphics Images or .Wav Files on a Remote Server

1. Go to the Engineering Set-Up menu.
2. Use the soft pots to highlight **Network**.
3. Press the **Hosts** soft key.
4. At the Hosts menu:
   - Press **Add**.
   - Scroll to Machine Name.
   - Press **Modify**.
   - Enter the remote machine name from the keyboard (which, in this example, we will label NFS_server).
   - Press **Enter**.

[1] "DiskShare" is a trademark of Shaffer Solutions Corporation, Huntsville, Alabama.

5 Perform the same steps for the IP address of the remote machine.

6 Exit from this menu by pressing the **..Exit** soft button.

7 Create an empty directory (mount point); for example, /pcdisk/MyFolder.

8 Press **File**.

9 Press **File Path** (use **\..** + **Select**, if necessary, to navigate to the /pcdisk/*.* directory).

10 Press **CreatePath**.

11 Using an external keyboard attached to the control panel, type **MyFolder**.

12 Use the soft pots to highlight **NFS Import**.

When using an exported repository for logo definition files, the servers NFS setup must allow Read and Write access to the exported path. (The default is usually Read Only).

13 At the Setup menu:

- Press **Add**.
- Scroll to Machine Name.
- Press **Modify**.
- Enter the remote machine name from the keyboard.
- Press **Enter**.

14 Perform the same steps for the exported path on the remote server and the local path.

15 By selecting the /pcdisk/MyFolder/*.* path, you will see the files in the corresponding directory of your PC.

16 Exit from this menu by pressing the **..Exit** soft button.

17 Go to the **File** menu.

18 Press the **FilePath** soft key, then navigate to the top of the file structure.

19 The new export path will appear. You will now have access to all the image and/or audio files on your remote server.

CAUTION

The NFS server PC should be running all the time. Logos will not disappear if the network connection terminates, but IconLogo may not be able to load logos.

The speed and power of this setup will become apparent as changes made to the graphics file on the remote server can be imported to the IconLogo and cut to air in seconds.

Setting Up the System to Access Audio and Video Logos Created Remotely on a Remote Server

You will need an external keyboard to carry out these operations.

1 Go to the Engineering Set-Up menu.

2 Use the soft pots to highlight **Logo Path**. This will most likely be set to /pcdisk/llf, which is the default setting for the local compact flash file system.

3 Press the **ChangePath** soft key; then, using the external keyboard, enter the local path (for example, /extlogos).

4 Press the **ReloadLogos...** soft key, then press the **...Reload All** soft key.

Once the reloading operation is complete, all the logos created on the remote server are available for use. (See page 102 for additional notes on changing the logo path.) The path can only be changed to a valid local or remote exported directory and should have write access.

Control Panel

IconLogo can be remotely controlled from a NUCLEUS™ control panel (with the IconLogo control option) for manual on-air control of the system as well as for other off-line functions. See the *NUCLEUS IconLogo Option Installation and Operation Manual* for details.

IconLogo Operation

Setting Up the Control Panel

The IconLogo control panel is capable of controlling one and slaving another of any number of IconLogo systems on the same network. The display on the control panel as first powered up is shown in **Figure 7-1**.

Since the control panel is part of a networked system, the control panel, when first powered up, will not be able to talk to your IconLogo. You must define the IP address of the IconLogo "machine(s)" you want it to control.

Figure 7-1 Display on New Panel

Adding a Machine's IP Address

In the menu descriptions that follow, "machine" refers to a IconLogo card set.

Use the number pad to enter the IP address of the IconLogo machine you want to talk to. Use the colon button to punctuate the address where you would enter a dot. The number pad value will be displayed in the top right hand corner of the display (see **Figure 7-2**). After entering the IP Address, press the **Add** soft button.

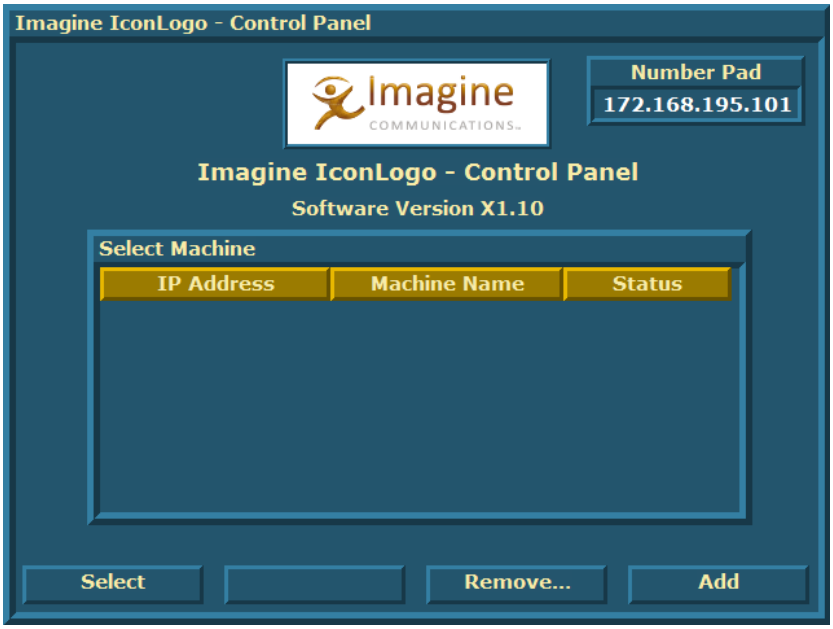


Figure 7-2 Entering an IP Address

For example, to add the IP Address 192.168.117.73, press

1 9 2 : 1 6 8 : 1 1 7 : 7 3 [**Add**]

The display will then show the new machine and any previously entered machines (see Figure 7-3).

Selecting a Machine

For each machine, its name (if entered via keyboard) is shown together with its current network status as follows:

- **Available** – the machine is available for control
- **Unreachable** – the machine cannot be reached (either not powered up or there is a network connection problem)
- **Busy** – the machine is being controlled by another panel

Figure 7-3 Machine Selection

To select a machine, use the top soft pot to scroll to and highlight a machine, then press the **Select** soft button.

If the machine is available it will display the On-Air Menu (see **Figure 7-4** on page 129). If there are any logos on preview or on-air for the selected layer, they will be shown in place of the "None" logos in **Figure 7-4** on page 129.

Figure 7-4 On Air Menu

Removing a Machine From the Network

When a machine will no longer be used in the network, or needs its IP Address changed, you must remove the old IP Address: select the machine with the top soft pot, then press the **Remove…** soft button. A new soft button selection will appear, which will allow you to cancel or confirm the machine's removal from the network list (see **Figure 7-5**).

Figure 7-5 Removing a Machine from a Panel

Configuring a New System

The default IP address of a new IconLogo system is 192.168.117.88. You can change the default IP address and subnet mask using the card edge controls or via a NEO Ethernet resource card and Navigator software.

> **CAUTION**
>
> We recommend that a dedicated network be used for IconLogo systems, control panels, and any file servers they use for source logos. We also recommend using a router to connect to other networks where the source material for the logos is generated to keep IconLogo network traffic down and to optimize system performance.

To configure a new system, follow these steps:

1. Power up the IconLogo.
2. Use the card edge controls and VFD (shown in **Figure 1-1** on page 9), press the **Enter** button to enter the parameter menus; use the **Nav+** and **Nav-** buttons to navigate through them.
3. Select the **IP Address** parameter, and then press **Enter**.
4. Using **Nav+** and **Nav-**, change each digit of the IP address using the standard "dotted-decimal" notation. After each digit is set, press the **Enter** button to go on to the next one. When changing each digit, use the "ß" symbol to return to the previous digit (without changing the current one) or use the inverted "x" to delete the current digit.

   There must be no leading zeros in any of the four parts of the IP address; for example, do not enter "010.128.001.024" if the address is meant to be 10.128.1.24.

5 When done, press the **Escape** button to return to the menu.
6 Select the **Subnet Mask parameter,** and then press **Enter**.
7 Set the correct subnet mask in the same manner as in step 4.
8 Ensure the IconLogo is connected to the Ethernet, and then power cycle the card set.

Standalone Systems

If your system is intended to be standalone (that is, one IconLogo and one control panel), you do not need to add it to a network. Add the default IP address of the panel to the machine list, but do not alter the IP address of the IconLogo system. In theory, through the use of network routers, a control panel should be able to control systems on other networks too, but using too remote a network or even using a general network that is too busy will result in loss of feedback. It may even result in the panel timing out and having to reselect the machine.

Multiple Network Systems

When the IconLogo system is spread over multiple networks, the IconLogo system can add the addresses of routers to reach that network.

Disconnecting the Control Panel

To disconnect the remote control panel, follow these steps:

1 Press the **Engineering** menu.
2 Select the **Machine ID** item using the soft pot.
3 Select the **Release** soft button.
4 Select the **Confirm** soft button (or double press the **Eng** button).

Changing the IP Address of the Control Panel

To change the IP address of the MGI-RCP-XX, you must connect a PS2 keyboard and mouse to the control panel, using the "Y" lead adaptor supplied with the keyboard.

1 Type **<Ctrl> X** to exit the MGI application.
2 From the Windows taskbar, select **Start > Settings > Control Panel**.
3 Select the **Network** icon.
4 Select the **TCP/IP Realtek RTL8139/810X Family PCI Fast Ethernet NIC** entry.
5 Click **Properties**.
6 Select the IP Address tab.
7 Select the **Specify an IP address** radio button.
8 Enter the required IP address and subnet mask.
9 Click **OK**, then click **OK** again. You will then be prompted to restart your control panel for the changes to be accepted.

Timing up an IconLogo

In most cases, timing up an IconLogo means vertically synchronizing the program output to an external genlock (reference). If no external reference is present then the system can have its Sync Select set to Program Input or Auto (Prog). The following steps use the features of Sync Select (page 119) and H & V Offset (page 118) as described in **Navigating the Engineering Menu**.

1. Set Sync Select to **Ref** mode. If the program vertical (V) does not line up with the external reference vertical (V), it will be noticeable on the video output since the ancillary (VANC) will be present in the middle of active picture.
2. Press auto-align to line up the horizontal and the vertical. Auto-align derives a horizontal value that is positioned in the centre of the IconLogo's line FIFOs (that is, amongst the program, the external fill and the external key video inputs); this is not a minimum delay value but one that allows maximum variation of the incoming video input relative to the reference without slipping a vertical line.

   The V value derived by auto-align is a reflection of the vertical (line) difference between the program input and the external reference. Do not worry if this value is not zero so long as the program output is truly vertically aligned to the reference.
3. Set Sync Select to **Auto** mode.

   The system should remain timed up, displaying a lock to Auto (Ref). If at any time the program input V does not line up with the reference (for example, if the program input was switched upstream to one that was differently timed up) the system will declare non-sync. During non-sync operation, the REF LED (on the front module) will flash slowly green/red.

   The system can be timed up again by pressing auto-align or by manually adjusting the V-offset value.

Slaving the IconLogo

It is possible to control a single IconLogo and slave another IconLogo for ganged operation.

To put a system into slave mode[1], follow these steps:

1. Double press the **Eng** button on the left of the panel.
2. Use the soft pots to navigate through the list of IP addresses and highlight the IP address of the IconLogo system you want to "slave."
3. Press the **+/-** button on the keypad on the right of the panel.
4. An asterisk (*) will appear immediately to the right of the machine number. This indicates that the machine has been successfully slaved.

   To release the machine from slave mode, repeat the above instructions. The asterisk (*) will not be shown once the slave has been released. Slave mode is cancelled if the master machine has been released.

[1] The Logo, File, and Engineering menus are disabled in Master/Slave mode.

On-Air Operation

Layer Selection

IconLogo has four on-air layers (both in HD and SD), each of which can put any of the available logos on-air. Up to 999 logo slots are available for building logos; each of these may be either static, animated or clock (also called wall clock) logos. The clocks can be either analog or digital, and the digital clocks can be shown with or without temperature. There are absolutely no limitations on which logos can be put onto which layers. With the IconLogo it is possible to put four clocks on air in either SD or HD units, each with a different style and showing a different time.

On-Air Indicator LEDs

Each layer button has two adjacent LEDs that indicate the status of logos for both Program and Next-On-Air for that layer. The explanation for the LED indicators are as shown in **Table 7-2**.

Table 7-2 Logo Status LED Indicators

LED Indicator	LED Location	
	Next-On-Air (Left)	**On-Air (Right)**
Off	No logo	No logo
Red	—	Logo on air
Green	External key	External key on air
Orange	Logo present	Logo present but faded down

Layer Priorities

Layers are prioritized such that layer 1 has the highest priority and layer 4 has the lowest priority. The layer prioritization only matters where logos on different layers overlap on air. However, the prioritization of layers can be used to produce composite effects, which appear to be single logo.

For example, an analog clock, which appears to have an animated face that moves every quarter of an hour, could be constructed from a normal analog clock which has a face logo with zero key values. The face animation would then be placed on the layer below, centered exactly where the original clock face would have been. The clock hands would then operate as normal and be displayed over an invisible face, which would reveal the animated face on the layer below.

Priorities of the layers are fixed. However, from the On-Air menu you can swap layers, so that logos on preview and program together with all settings for the layer are swapped with another.

To swap layers, follow these steps:

1 Select one of the layers you wish to swap using the Layer Select buttons.

2 From the On-Air Menu press the **Swap Layer…** soft button.

3 Select the layer you wish to swap with using the soft keys which show the other layers.

The current layer selection will change to the layer you swapped with, so that the logo selection remains the same.

Figure 7-6 shows the On-Air menu during layer swap operation.

Figure 7-6 On-Air Menu During Layer Swap Operation

Single and Multiple Layer Operations

While under manual control, all on-air operations on IconLogo apply to the layer currently selected on the control panel. To select the required layer, simply press one of the layer select buttons. The currently selected layer's button will illuminate. Single layer operation applies to the following operations:

- Selecting logos for preview and on-air
- "Cut," "Take," and "Fade" transitions from the control panel to take logos to air
- Starting, stopping, and rewinding animated logos
- Fading a layer down or up

Some operations can apply to multiple layers. To select multiple layers, press the required layer buttons at the same time. The selected layer's layer buttons will illuminate and, if in the On-Air menu, the on-air and preview information for all layers will be shown (see ***The On-Air Menu*** on page 135).

The simplest way to select all layers is to press the currently selected layer button. A single press of any layer button while multiple layers is selected will return control to the single layer selected.

Multiple layer operation applies to the following operations:

- "Cut" and "Take" transitions from the control panel to take logos to air
- Starting, stopping, and rewinding animated logos

The On-Air Menu

In the On-Air menu, the current layer's preview and program logos are shown, together with information about the logos' size, position, and type. A typical On-Air menu is shown in **Figure 7-7**.

Figure 7-7 Typical On-Air Menu

Changing layer selection will update the menu with the current logo. This menu is the best one to view when performing on-air operations. Consequently, when an on-air operation is in progress, the menu system automatically selects this menu so you can see the progress of the operation.

When multiple layers are selected (see ***Single and Multiple Layer Operations*** on page 134), the on-air and preview logos for the current layer are replaced by abridged details of the on-air and preview logos for all layers, as shown in **Figure 7-8**.

Figure 7-8 List of All Layers' Logos

Numerical Logo Selection

To put a logo on-air, either the required logo number must be known or you must look for the required logo in the menu system. The following section describes all the available methods for putting logos on air from the control panel when you know the logo number.

Selecting a Transition Type

In each of the following methods, where a non-zero duration transition will be performed, the transition type must be selected. The transition type is assigned and remembered for each layer but can be changed at any time from the On-Air menu before the transition takes place.

To change the Transition Type, follow these steps:

1. Select the On-Air menu.
2. Press the **Trans Type** soft button.
3. Select the transition type from the soft keys. The transition type is displayed (for the current layer) along with the "next" transition time (the time taken for the next transition if the **TAKE** button is pressed), in the top left hand side of the On-Air menu (see **Figure 7-9**). The available transitions are as follows:

Cross-Fade – This transition fades the current logo down and at the same time fades the preview logo up. The transition rate is defined by the "Fade-Up" time of the on-coming Logo.

Only one layer can be cross-faded at a time. Consequently, if automation or the control panel calls up two or more layers to transition with a cross fade simultaneously, only the layer with the highest priority will actually cross-fade. The other layers that required a cross-fade will default to the fade-fade transition style.

Fade-Fade or **“V” Fade** – This transition fades the current on-air logo down (with its own predefined fade down time) and then when the current logo is off air, the next logo fades up (with its own predefined fade up time).

Fade-Take – With this transition the current on-air logo fades down (with its own predefined, transition rate) and the new logo instantly cuts once the previous logo has faded completely.

Take-Fade – With this transition the current on-air logo cuts off screen instantly, then the next logo fades up (with its own predefined Fade Up time).

#Wipe L-R – This transition wipes the current logo off, from the left edge to the right, and wipes the preview logo on. Using the keypad, enter the number of pixels required between the transitioning logos, and then press this soft button. (The rate of the wipe is adjusted using the Fade Rates parameter.)

#Wipe R-L – This transition wipes the current logo off, from the right edge to the left, and wipes the preview logo on. Using the keypad, enter the number of pixels required between the transitioning logos, and then press this soft button. (The rate of the wipe is adjusted using the Fade Rates parameter.)

  - Below the transition type, the current layer state and transition rate is shown. The Layer box is highlighted when a logo is on air on the currently selected layer.
  - Below the layer transition and rate, the Master Fade state and transition rate is shown. The Master Fade box is normally highlighted to show that Master Fade is on.
- If the Fade-To-black option is enabled in the Engineering menu, the FTB state and transition time is shown below the Master Fade. (The FTB box is normally not highlighted, as Fade To Black is normally off.)

For changing fade-up and fade-down times of individual logos, see ***Fade Rates*** on page 78.

Figure 7-9 Transition Type Displayed

Transitioning a Logo to Air via Preview

This operation selects a new logo on the preview of the current layer (and will appear on the on-Air menu, which should be automatically selected) and on the Preview Output of the IconLogo. You can then confirm the correct logo selection before pressing the **TAKE** button to start the transition, which will result in the new logo appearing on-air.

1. Enter the logo number from the control panel's number pad.
2. Press the **Sel** button (bottom right) on the control panel's number pad. The menu will automatically change to the On-Air menu.
3. Confirm on the Preview menu or the Preview monitor that the correct logo has been selected.
4. Change the transition type (if required).
5. Press the **TAKE** button.

   During the transition the **TAKE** button and **FADE** buttons will illuminate.

Cutting a Logo to Air via Preview

This operation selects a new logo on the preview of the current layer (and will appear on the On-Air menu, which should be automatically selected) and on the Preview Output of the IconLogo. You can then confirm the correct logo selection before pressing the **CUT** button to instantly cut the new logo on-air.

1. Enter the logo number from the control panel's number pad.
2. Press the **Sel** button (bottom right) on the control panel's number pad. The menu will automatically change to the On-Air menu.
3. Confirm on the Preview menu or the Preview monitor that the correct logo has been selected.
4. Press the **CUT** button.

Transitioning a Logo to Air without Preview

This operation should only be performed if you know the logo number. It should be used only for fast changes to the current on-air logo selection, because the logo is not previewed before it goes on-air.

1 Change the transition type (if required).
2 Enter the Logo number from the control panel's number pad.
3 Press the **TAKE** button.

During the transition the **TAKE** button and **FADE** buttons will illuminate.

Cutting a Logo to Air without Preview

This operation is the fastest way to call a logo to air, but should always be used with caution. This operation should only be performed if you know the logo number. It should only be used for fast changes to the current on-air logo selection, because the logo is not previewed before it goes on-air.

1 Enter the Logo number from the control panel's number pad.
2 Press the **CUT** button.

Taking a Logo Off Air

There are several methods for taking a logo off air from any layer. The method depends on the speed required and whether the logo is required back on air again soon.

To take a logo off air temporarily, follow these steps:

1 Select the required logo's layer using the **Layer Selection** buttons.
2 If necessary, enter a numerical value (in frames) for the fade time. If no value is entered the logo will fade down at the logo's preset "Fade Down" time.
3 Press the **FADE** button.
4 When the logo is required back on air again, press the **FADE** button again. The logo will fade back up at the logo's preset "Fade Up" time.

To take a logo off air permanently, follow these steps:

1 Enter "0" from the number pad.
2 Depending on the speed of operation required, take one of the following actions:
   - Press the **CUT** button to cut the logo off the current layer.

     OR
   - Press the **TAKE** button to fade the logo off with the Logo preset "Fade Down" time.
3 Either of these two methods will leave no logo on air or on preview of the current layer. This will be evident from the On-Air menu, which will automatically be selected when the **CUT** or **TAKE** button is pressed.

All three of these methods also work with the "All Layers" selection (see ***Single and Multiple Layer Operations*** on page 134). This allows the entire composite output from all four layers of IconLogo to be removed from air.

When all the logos have faded using the "All Layers" fade, you can fade a single layer back on air. ***To fade a single layer back on air, follow these steps***:

1 Select a single layer using the **Layer Select** buttons.
2 Press the **FADE** button.
3 The selected layer will fade back up, leaving the other layers off air.

Finishing a Transition Quickly

If a transition is in progress, which is required on-air faster than the preset transition time (that is, the current logo transition is taking too long and is required on-air immediately), the transition can be manually finished quickly by pressing the **TAKE** button again while the transition is in progress

Logo Sequences

You can set up logos to call a different "Next Logo," so that they can be called up in a sequence. Referring to the section on creating Logos in the Logo menu, each logo has a "Next Logo," into which the next logo required in the sequence can be entered. **Figure 7-10** shows the Logo menu with Logo 18, and calling up Logo 12 as "Next Logo."

LogoMotion - Ottawa
Next Logo
Logo Number 18 Analogue Clock (251 x 252)
Logo Name Leitch Clock Small GMT
Analogue Part Second Hand
Fill Source R: 255 G:0 B:0
Key Source /pcdisk/Image/Clocks/min_small.tif (13 x 144)
Key Levels Lift: 0 Gain: 100.00 %
Audio Source /pcdisk/AUDIO/CHIMES.WAV (1.689 sec.)
Audio Levels Logo: 55.00 % Duck: 0.00 %
Audio Play Rep. 01:00:00
Display Logo
Key Mode Normal Key
Position 30, 30
Opacity 100.00 %
Fade Rates 10 / 10
Next Logo 12
Source Num None
Time OffSet 00:00:00
Next Logo
Clear
GotoNext

Figure 7-10 Calling Up "Next Logo"

As an example, two sequences could be made up, which include the same end sequence (a channel ident animation for example). If the channel ident animation were made up of three animated logos: 23, 24, and 25, these could be made to call up each other with a delay between each one, resulting in 25 calling up 23 and restarting the sequence.

Sequence 1: *10, 12, 23, 24, 25, 23, 24, 25…*

- *10* – Program coming next Logo (called before program starts)
- *12* – Program starting Logo (called as program starts)
- *23, 24, 25* – Channel Identification Sequence, an animation which repeats with delays between each commercial section throughout the program

Sequence 2: *30, 31, 32, 23, 24, 25, 23, 24, 25…*

- *30* – Program coming next Logo (called before program starts)
- *31* – Program intro showing what is coming up in the program.
- *32* – Program starting Logo (called as program starts)
- *23, 24, 25* – Channel Identification Sequence, an animation which repeats with delays between each commercial section throughout the program

These logo sequences can be fired off manually, from GPIs, or from an automation system with the recall of a single logo number.

Manually Overriding Sequences

When a logo that has no "Next Logo" defined is transitioned or cut to air on a layer, it remains on both the Program and Preview for that layer. When a logo that does have a "Next Logo" defined is cut or transitioned to air on a layer, the "Next Logo" is automatically called up onto the Preview for that layer. Thus, when **TAKE** or **CUT** is pressed, the "Next Logo" is transitioned to air.

Although this mechanism happens automatically for a logo once its "Next Logo" has been set up, it does not prevent you from overriding the next logo shown on the Preview. ***To override the next logo shown on the Preview,*** simply call up the required next logo onto the preview in the usual way. This will override the logo sequence. ***To start the sequence again,*** you must call to air one of the logos in the sequence.

Finding a Logo Using the Preview Menu

The previous section concentrated on selecting logos when you already knew the logo number. When you do not know a logo's number, the Preview menu is the fastest way to locate it. From this menu, once the logo has been found it can be selected onto the Preview for taking to air with a single button press. **Figure 7-11** shows a typical Preview menu that displays the details of Logo 22.

Figure 7-11 Typical Preview Menu

To find the required logo, follow these steps:

1 Press the **Preview Menu** button.
2 Use either soft pot to scroll through the available logos. The logos will appear on the menu together with details of the type, name, size, position, and opacity on screen.
3 A high-resolution thumbnail of the logo appears in the menu (although not updating as fast as the logo details).
4 If the "Follow Menus" option is set in the Engineering menu, the Preview output will show the currently selected logo as it changes in the Preview menu.

Once the required logo has been found, ***to take it to air, follow these steps:***

1 Press the **Sel** button on the number pad. It will then appear on the current layer's, preview selection as shown on the On-Air menu, which will be automatically selected.
2 Change the transition type if required.
3 Press the **TAKE** or **CUT** buttons as required.

Taking a Logo To Air from the Logo Menu

When a logo has just been created or modified, in certain situations it may be desirable to take this logo straight to air. To do this, the logo selection works the same way as described in the previous section for the Preview menu.

When the panel is in the Logo menu and the Logo menu shows the logo that is required on air, follow these steps:

1 Press the **Sel** button on the number pad. It will then appear on the current layer's Preview selection as shown on the On-Air menu (which will be automatically selected).
2 Change the transition type if required.
3 Press the **TAKE** or **CUT** buttons as required.

Altering a Logo that is Currently On Air

IconLogo will not actually allow you to change a logo that is on air. The logo must first be taken off air, modified, then put back on air or copied. You can then adjust the copy and take it to air in place of the unmodified original. This gives you three methods of changing an on-air logo.

The first method requires that the logo is taken off air first. This can be done in one of two ways: fade the logo down or cut the logo off air. Both of these methods result in the same logo being permanently adjusted, with the new settings applied to the logo whenever it appears on the air.

Method 1 – Fade the Logo Down

1 Press the **FADE** button to fade the logo down.
2 When the logo has faded off the Program output, make the adjustments in the Logo menu.
3 Press the **FADE** button to fade the logo back on air.

Method 2 – Cut the Logo Off Air

1 Enter "0" from the number pad (to select "No Logo").
2 Choose one of the following options:

- Press the **CUT** button to remove the logo quickly from air.
- Press the **TAKE** button to fade the logo down at the Logo's preset "Fade Down" time.

3 The logo can now be altered in the Logo menu.

4 If the logo is required back on air, you can quickly select the logo to preview from the Logo menu by pressing the **Sel** button on the key pad, then transitioning the logo to air using the **CUT** or **TAKE** button as required.

Method 3 – Copying the Logo

1 Select the logo in the Logo menu. The current Preview logo is automatically selected in the Logo menu when it is selected.

2 Press the **More...** soft button.

3 Enter a new, unused logo number from the number pad.

4 Press the **Copy Logo**[1] soft button.

5 Alter the new logo as required (it is automatically selected in the Logo menu after this operation). It can be altered, since this particular logo is not on air.

6 Select transition style and method required, then transition it to air.

Figure 7-12 on page 143 shows the copy operation being used on logo 22.

Figure 7-12 Logo Copy Operation

This method will result in the creation of a new logo, which is a copy of the original. It has several advantages:

- It keeps the original logo unaltered.
- It allows a smooth transition to the new settings without interrupting the on-air logo.

For example, the logo could appear to cross-fade from one position to a new position without ever going off air.

[1] This feature is not available for Text Crawl or Text Titling logos.

Controlling Animations

Animated logos have many options to define their behavior as they come on air, and to what they do when the animation has finished playing. Most of these operations happen without user interaction. (See **Logo Creation** [page 57 through page 128] for details). However, at some point you may want to manually control the playing of an animation.

There are two buttons on the control panel specifically for playing animations. The first button [**>**] is a **Play/ Stop** button. If the animation is static, the button will start it playing; if the animation is playing, the button will stop it.

- To start an animation that is static on the current layer, press the **>** button.
- To stop the animation if it is playing, press the **>** button again.
- To recue the animation to the first frame of the animation (whether it is playing or not), press the **<<** button.

If the animation is part of a sequence, or has an end delay or an end action set up (see **Logo Creation** [page 57 through page 128] for details), these operations will always be obeyed, even if the animation was started manually from the control panel.

These operations may be applied to all layers which contain animations by using the "All Layers" selection.

EAS Device/IconLogo System Operation

Upon completion of the preparatory procedures described in ***EAS Logos Menu*** on page 128, the combined EAS device/IconLogo system will operate automatically. When an EAS message is received, it will be put ON AIR immediately with the appropriate background, other logos, etc., as per the settings you selected. The length of time the EAS message will stay ON AIR is determined by the Text Crawl Repeat parameter (see ***Text Crawl and Titling*** on page 89).

If another EAS message arrives, it will be put ON AIR immediately, regardless if the previous message was already taken out or not.

8 Troubleshooting

Overview

The troubleshooting information provided in this chapter concerns several situations that may occur with your IconLogo. Please try the suggested corrective actions first. If the corrective actions do not solve your problem, contact Customer Service.

Troubleshooting Topics

Cannot communicate with the IconLogo from the control panel

- Ensure that you are using the Ethernet port closest to the power connector on the back of the control panel.
- Ensure that you have an Ethernet cable connected directly to the rear of the MGI-3901 module and not just to the Ethernet port of the NEO frame.
- From the card edge, ensure that the "**EthernetEn**" parameter is set to Yes.
- Ensure the control panel is trying to select the correct IP address of the MGI-3901 unit by checking the IP address of the MGI-3901 via the card edge.
- From the MGI-3903 card edge, ensure that the "**Subnet Mask**" parameter is set correctly for the network.

Cannot select or take a logo to air

- When the MGI-3901 is first powered on, it can take several minutes for all the logos to be loaded into the DDR2 on-line memory. The number of logos or the length of the animation will determine how long it takes for all the logos to be loaded into DDR2 memory.
- Converting your animations into mg2 logo format, in most cases, will significantly improve the load time.

Set up IconLogo, but outgoing video stream has problems

(for example, picture not present, only black being generated on video output, picture unstable, or picture broken up)

- Make sure that all inputs are connected properly; ensure that the back module is plugged in firmly to make stable contact with the MGI-3901 circuit boards.
- Ensure that a program stream video is present to begin with (otherwise only black is generated).
- Go to the Engineering menu. Observe that under "**Machine Status**" the appropriate standard is detected.
- Make sure the Engineering menu has the appropriate synchronization source (**Sync Select**). There are four possible sources: external reference (most typical configuration), program input, external fill, or external key.
- Select the **H & V offset** parameter under the Engineering menu, and then press **Auto align** to ensure the MGI-3901 system times up to the middle of the horizontal timings of the incoming video stream.

Upgraded the firmware; now the device doesn't boot anymore

The firmware upgrade process may require some internal data conversions done in non-volatile memory. You may have to reboot up to 3 times with a one (1) minute interval between reboots, after firmware upgrade is done.

9 Specifications

Overview

The following tables list specifications for the IconLogo.

- ***IconLogo Interface*** on page 147
- ***IconLogo-IO-FM Interface*** on page 152
- ***Embedded Audio*** on page 151
- ***Miscellaneous Items*** on page 152

Specifications and designs are subject to change without notice.

IconLogo Interface

Table 9-1 Automation Serial Communications Interface Specifications

Item	Specification
Standard	RS-422 (SMPTE S207M)
Connector	Female 9-pin D-sub
Max output drive	–0.25 V to + 6V
Receiver input sensitivity	±200 mV
Data comms	■ 38400 baud ■ 8 bit ■ No parity ■ 1 stop bit

Table 9-2 EAS Serial Communications Interface Specifications

Item	Specification
Standard	RS-4232 (EIA-232-C)
Connector	3 pins of 44-pin D-sub

Table 9-2 EAS Serial Communications Interface Specifications

Max output drive	0.25V to 5V
Receiver input sensitivity	±200 mV
Data comms	■ 9600 baud ■ 8 bit ■ No parity ■ 1 stop bit

Table 9-3 Ethernet Port Specifications

Item	**Specification**
Standard	10/100Base-T IEEE 802.3u
Connector	8-pin RJ-45

Table 9-4 Temperature Probe Input Specifications

Item	**Specification**
Electrical	24 V to 75 R, current probe, 12 - 36 VDC, 4 - 20 mA
Connector	2 pins of 44-pin D-sub

Table 9-5 Time Code Input Specifications

Item	**Specification**
Standard	ANSI/SMPTE12M time code (LTC)
Electrical	0.5 – 12 Vp-p
Impedance	>10kΩ
Connector	2 pins of 44-pin D-sub

Table 9-6 General Purpose Interface (GPI) Input Specifications

Item	**Specification**
Quantity	12
Type	Non-isolated TTL, diode protected (external isolation required for voltages outside the range)
Polarity	Software specified
Voltage range	-0.3 V to +5.3 V
Current load	1 mA
Connector	44 pin HD “D” type

Table 9-7 General Purpose Interface (GPI) Output Specifications

Item	Specification
Quantity	8
Type	TTL open drain/collector
Polarity	Software specified
Voltage range	-0.3 V to +5.3 V
Load	100 mA max.
Connector	44 pin HD “D” type

Table 9-8 Digital Audio Input Specifications

Item	Specification
Quantity	4
Standard	AES3-1992 (balanced)
Sample rate	48 kHz (24 to 96 kHz when resamplers used)
Audio resolution	24-bit
Connector	25 pin “D” type, female
Impedance	110Ω ± 20% from 0.1 MHz to 6 MHz
Sensitivity	>200 mV
Maximum input signal level	7 Vp-p

Table 9-9 Digital Audio Output Specifications

Item	Specification
Quantity	4
Standard	AES3-1992 (balanced)
Sample rate	48 kHz
Audio resolution	24-bit
Connector	25 pin “D” type, female
Impedance	110Ω ± 20% from 0.1 MHz to 6 MHz
Output level	2 to 7 Vp-p
Jitter	<± 20 ns
Rise/fall time	5 to 30 ns (10% to 90%) when measured across a 110 R resistor connected across the output terminals with no interconnecting cable
Channel status	Resamplers on — transparent C, U, V bits Resamplers off — U and V = “0” as **Table 9-10** for C

Table 9-10 Generated AES Channel Status when Resampling AES Inputs — Channel Status (C) Data

Byte(s)	Bit(s)	Function	Setting and Comment
0	0	[0] Consumer use [1] Professional use	'1' = Professional use
	1	[0] Audio [1] Non-audio	'0' = Audio
	2-4	Emphasis [000] Not indicated [100] No emphasis [110] 50/15µs [111] CCITT J17	'000' = Not indicated
	5	[0] Locked [1] Unlocked	'0' = Locked
	6-7	Sample rate [00] Not indicated [01] 48 kHz [10] 44.1 kHz [11] 32 kHz	'01' = 48 kHz
1	0-3	Channel mode [0000] Not indicated [0001] 2 channel [0010] Mono [0011] Primary/ secondary [0100] Stereo	'0000' = Not indicated
	4-7	User bit mode [0000] Not indicated [0010] AES18 [0011] User defined	'0000' = Not indicated

Table 9-10 Generated AES Channel Status when Resampling AES Inputs — Channel Status (C) Data *(Continued)*

Byte(s)	Bit(s)	Function	Setting and Comment
2	0-2	Aux bits [000] Not defined [001] 24-bit main audio [010] Coordination [011] User defined	'001' = 24-bit main audio or '000' = 20-bit main audio, on embedded output when 24-bit embedding is not used
	3-5	Sample length [000] Not defined [001]-[101] Sample length	'101' = 24 bit or '101' = 20-bit, on embedded output when 24-bit embedding is not used
	6-7	Reserved	'00'
3	0-7	Reserved	'0'
4	0-1	Reference grade [00] Not a reference [01] Grade 1 reference [10] Grade 2 reference	'00' = Not a reference
	2-7	Reserved	'0'
5	0-7	Reserved	'0'
6-9		ASCII source ident	'MGI'
10-13		ASCII destination ident	
14-17		Local sample address	'0'
18-21		Time-of-Day address	'0'
22		C data reliability	'0'
23		CRCC	As computed to match CRC of above data

Embedded Audio

- Per SMPTE 299M, for HD video, 2 groups (4 stereo pairs)
- Per SMPTE 272, for SD, 2 groups (4 stereo pairs)

Miscellaneous Items

Table 9-11 Miscellaneous Specifications

Item	Specification
Maximum system video delay	1 video line, typically half a video line
Maximum power consumption	12 watts
Performance temperature	41°–104°F (5°–40°C)
Operating temperature	32°–122°F (0°–50°C)

IconLogo-IO-FM Interface

The Clean Output of the IconLogo-IO-FM is a re-clocked output.

Table 9-12 SDI Input Specifications

Item	Specification
Number of inputs	3
Connector type	BNC per IEC60169-8
Standards	SMPTE 259M-C (SD), 525/625 SMPTE 292M-C (HD), 720p50/59, 1080i50/59
Impedance	75Ω
Return loss	> 18 dB to clock frequency (SD) > 18 dB to clock frequency (HD)
Signal level	800 mV ± 10%
Max input cable	> 820 ft (250 m) for Belden 1694A coaxial cable (SD) > 328 ft (100 m) for Belden 1694A coaxial cable (HD) (Adaptive cable equalization)

Table 9-13 Reference Input Specifications

Item	Specification
Number of inputs	1
Connector type	BNC per IEC60169-8
Standard	NTSC and PAL reference (SMPTE 318M) HDTV reference

Table 9-13 Reference Input Specifications

Impedance	75Ω
Return loss	> 40 dB from 25 Hz to 10 MHz > 35 dB from 25 Hz to 30 MHz
Signal level	1 Vpp ± 6dB or Tri-level 600m Vpp ± 6dB

Table 9-14 SDI Output Video Specifications

Item	**Specification**
Number of outputs	4
Connector type	BNC per IEC60169-8
Standards	SMPTE 259M-C (SD), 525/625 SMPTE 292M-C (HD), 720p50/59, 1080i50/59
Impedance	75Ω
Return loss	> 18 dB to clock frequency (SD) > 18 dB to clock frequency (HD)
Signal level	800 mV ± 10%
DC offset	0 V ± 0.5 V
Rise and fall times	0.75 ns to 1.5 ns (SD) < 270 ps (HD)
Overshoot/undershoot	< 10%
Jitter	< 0.2UI peak-to-peak (>10Hz) (SD) < 1UI (673ps) peak-to-peak of timing jitter (>10Hz) (HD) <0.2UI (135ps) peak-to-peak of alignment jitter for (>100kHz) (HD)

A IconLogo Representative Storage Capacity

Overview

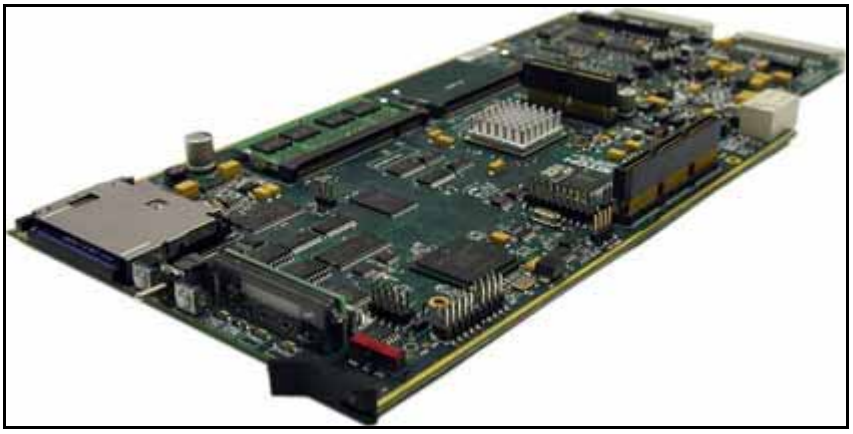


Figure A-1 SODIMM1 and SODIMM2

This appendix lists information concerning the storage capacities of various DDR2 modules that can be used with the IconLogo.The tables that follow display various DDR2 modules' storage capacity in total pixels, maximum quantity, and maximum animation for three popular logo sizes.

- ***512 MB-128 MPIX Storage Capacity*** on page 156.
- ***1 GB-256 MPIX Storage Capacity*** on page 156.
- ***2 GB-256 MPIX Storage Capacity*** on page 157.
- ***4 GB-256 MPIX Storage Capacity*** on page 158.

512 MB-128 MPIX Storage Capacity

Table A-1 Storage Capacity Using 512 MB, 128 MPix DDR2 Module

Logo Size	525			625		
	Total Pixels	**Maximum Quantity**	**Maximum Animation (Seconds)**	**Total Pixels**	**Maximum Quantity**	**Maximum Animation (Seconds)**
1/9	38880 (240×162)	3452	115.1	46080 (240×192)	2913	116.5
1/4	87480 (360×243)	1534	51.1	103680 (360×288)	1295	51.8
Full	349920 (720×486)	384	12.8	414720 (720×576)	324	13
	HD - 1080i			**HD - 720p**		
1/9	230400 (640×360)	583	19.4	102480 (427×240)	1310	43.7
1/4	518400 (960×540)	259	8.6	230400 (640×360)	583	19.4
Full	2073600 (1920×1080)	65	2.2	921600 (1280×720)	146	4.9

Storage capacity based on worst case figures.

Animation capacity based on 30 frames per second (except 625 which is based on 25).

"Total Pixels" based on complete size usage active picture, hence "worst case."

"Maximum Quantity" assumes only the one logo size used for sake of comparison.

"Maximum Animation" assumes only the one logo at that size, for sake of comparison.

1 GB-256 MPIX Storage Capacity

Table A-2 Storage Capacity Using 1 GB, 256 MPix DDR2 Module

Logo Size	525			625		
	Total Pixels	**Maximum Quantity**	**Maximum Animation (Seconds)**	**Total Pixels**	**Maximum Quantity**	**Maximum Animation (Seconds)**
1/9	38880 (240×162)	6904	230.1	46080 (240×192)	5825	233
1/4	87480 (360×243)	3069	102.3	103680 (360×288)	2589	103.6
Full	349920 (720×486)	767	25.6	414720 (720×576)	647	25.9
	HD - 1080i			**HD - 720p**		

Table A-2 Storage Capacity Using 1 GB, 256 MPix DDR2 Module

1/9	230400 (640×360)	1165	38.8	102480 (427×240)	2619	87.3
1/4	518400 (960×540)	518	17.3	230400 (640×360)	1165	38.8
Full	2073600 (1920×1080)	129	4.3	921600 (1280×720)	291	9.7

Storage capacity based on worst case figures.

Animation capacity based on 30 frames per second (except 625, which is based on 25).

"Total Pixels" based on complete size usage active picture, hence "worst case."

"Maximum Quantity" assumes only the one logo size used for sake of comparison.

"Maximum Animation" assumes only the one logo at that size, for sake of comparison.

2 GB-256 MPIX Storage Capacity

Table A-3 Storage Capacity Using 2 GB, 256 MPix DDR2 Module

Logo Size	525			625		
	Total Pixels	**Maximum Quantity**	**Maximum Animation (Seconds)**	**Total Pixels**	**Maximum Quantity**	**Maximum Animation (Seconds)**
1/9	38880 (240×162)	13808	460.2	46080 (240×192)	11650	466
1/4	87480 (360×243)	6138	204.6	103680 (360×288)	5178	207.2
Full	349920 (720×486)	1534	51.2	414720 (720×576)	1294	51.8
	HD - 1080i			**HD - 720p**		
1/9	230400 (640×360)	2330	77.6	102480 (427×240)	5238	174.6
1/4	518400 (960×540)	1036	34.6	230400 (640×360)	2330	77.6
Full	2073600 (1920×1080)	258	8.6	921600 (1280×720)	582	19.4

Storage capacity based on worst case figures.

Animation capacity based on 30 frames per second (except 625, which is based on 25).

"Total Pixels" based on complete size usage active picture, hence "worst case."

"Maximum Quantity" assumes only the one logo size used for sake of comparison.

"Maximum Animation" assumes only the one logo at that size, for sake of comparison.

4 GB-256 MPIX Storage Capacity

Table A-4 Storage Capacity Using 4 GB, 256 MPix DDR2 Module

Logo Size	525			625		
	Total Pixels	**Maximum Quantity**	**Maximum Animation (Seconds)**	**Total Pixels**	**Maximum Quantity**	**Maximum Animation (Seconds)**
1/9	38880 (240×162)	27616	920.4	46080 (240×192)	23300	932
1/4	87480 (360×243)	12276	409.2	103680 (360×288)	10356	414.4
Full	349920 (720×486)	3068	102.4	414720 (720×576)	2588	103.6
	HD - 1080i			**HD - 720p**		
1/9	230400 (640×360)	4660	155.2	102480 (427×240)	10476	349.2
1/4	518400 (960×540)	2072	69.2	230400 (640×360)	4660	155.2
Full	2073600 (1920×1080)	516	172	921600 (1280×720)	1164	38.8

Storage capacity based on worst case figures.

Animation capacity based on 30 frames per second (except 625, which is based on 25).

“Total Pixels” based on complete size usage active picture, hence “worst case.”

“Maximum Quantity” assumes only the one logo size used for sake of comparison.

“Maximum Animation” assumes only the one logo at that size, for sake of comparison.

B Frequently Asked Questions

How do I add time and / or temperature to a logo?

Using the Quick Select Logo (Macro Logo) format, create a logo called Digital Clock. You can trigger them together as a single logo, or use your static logo as a clock face (to save a layer).

How do I create a digital clock?

A digital clock in IconLogo requires the following graphics files. These files can be created in the graphic editor of your choice and saved in any supported file format (see page 3 for supported formats)

- Font key file – must be specified because it is used to specify the font characters' cell sizes. These files must contain the pre-rendered digits and characters required by the clock key. This file is a sequence of graphic images of all clock characters rendered in a single line and in the order shown below on a black background (see **Figure B-1**). There must be at least two (2) vertical black (RGB 0,0,0) lines between font symbols for the file to be loaded correctly.

Figure B-1 Font Key

- Font fill file – is optional. These files must contain the pre-rendered digits and characters (including textured fonts) required by the clock fill. They must correspond with the Font key file. Alternatively, you can choose to use Matte fill.
- Face fill file – is optional. The graphic file forms the background for the clock onto which the clock digits are rendered (see **Figure B-2**). It is specified as a normal static logo, except that external sources are not permitted, and the transparent option is available.

Figure B-2 Face Fill

- Face key file – is optional. This file is not required for transparent, box key, and self key logos.

To create the logo, do the following:

1. Press the Logo soft button on the left of the control panel and choose Logo number menu item.
2. Press the **#Create** soft button followed by the **Digital clock** soft button.
3. Specify a fill source and a key source for the digital clock face (see page 84).
4. Go to "Digital part" menu item and press the **Font** soft button.
5. Specify a fill source and a key source file for the digital clock font (see page 84). If you happened to see an error message it should be gone after you have completed this step.
6. To change other clock parameters, see page 84 through page 88.

Digital clock limitations

- Clocks take up to two seconds to build, so are not available right away.
- Always take to Preview before going on-air (this could be avoided by declaring the clock as an instant clock 1 or 2 in the Engineering menu).
- If you would like to use an animation or external key/fill as a background for the clock, you should create a separate logo and transparent digital clock and use two layers to display the combination. Quick Select logo could be used to trigger both logos at the same time through a control panel.

How do I position time and temperature on a screen?

- For a Time-only or Temp-only digital clock, use Font origin to position the text relative to the top left corner of the face.
- For Time-Temp and Temp-Time you have more flexibility. In addition to Font origin which is responsible for temp positioning for Temp-Time and time positioning for Time-Temp clocks you could use TT offset to position the second component (Time or temp respectively).
- Vertical TT offset is always calculated from vertical font origin position.
- Horizontal TT offset and horizontal Font origin meaning depends on the value of TT Justify parameter.

Example for Time-Temp clock:

- Left-Justify: Horizontal font origin – distance between left edge of Time and left edge of the face. Horizontal TT offset – distance between left edge of Temp and left edge of the face.
- Relative-Justify: Horizontal font origin – distance between left edge of Time and left edge of the face. Horizontal TT offset – distance between left edge of Temp and left edge of the Time.
- Center-Justify: Horizontal font origin – distance between center of Time and center of the face. Horizontal TT offset – distance between center of Temp and center of the face.
- Right-Justify: Horizontal font origin – distance between right edge of Time and right edge of the face. Horizontal TT offset – distance between right edge of Temp and right edge of the face.

If you change Spacing, Font origin, TT spacing or TT justify parameters and clock digits disappear, and an error message is displayed on the control panel, you violated digital clock geometry by providing incorrect combinations of parameter values. This resulted in either time or temperature digits going outside of the face boundaries. To fix the problem, roll back the value of the parameter you were changing.

How do I remove the degree sign from the temperature?

Go to Temp Units menu item in Logo menu and toggle the Show Degree button.

How do I create an analog clock?

Analog clocks consist of three or four graphics elements, depending on whether second hands are required:

- Face Logo
- Hour Hand Logo (shown in 12 o'clock position)
- Minute Hand Logo (shown in 12 o'clock position)
- Second Hand Logo (shown in 12 o'clock position) – optional

Each element is effectively a "Static Logo," consisting of a Fill and Key source. The MGI-3903 rotates the hands and then combines them with the face to generate the analog clock "on the fly." It is important that the hands of the clock must sweep within the face area.

To create the logo do the following:

1. Press the Logo soft button on the left of the control panel and choose Logo number menu item.
2. Press the **#Create** soft button followed by **More...** and **Analog clock** soft buttons.
3. Specify fill source (see page 65) and key source (see page 69) for the analog clock face. If you see an error message, it should be gone after you have completed this step.
4. Go to "Analog part" menu item and press the **Hour hand** soft button.
5. Specify a fill source and a key source file for the hour hand (see page 83).
6. Go to "Analog part" menu item and press the **Minute hand** soft button.
7. Specify a fill source and a key source file for the minute hand (see page 83).
8. Optionally, go to "Analog part" menu item and press the **Second hand** soft button.
9. Specify a fill source and a key source file for the second hand (see page 83).
10. To change other clock parameters, see page 84 through page 88.

How many logos or how long an animation will fit into my DDR2?

The number of logos or animation files that fit on a DDR2 module will vary, depending on the module's size and storage capacity. See **Appendix A, *IconLogo Representative Storage Capacity*** starting on page 155, for more information.

How can the logo that was on air before EAS was enabled be restored after EAS is disabled?

In the EAS text crawl, set the following.

- Set Next Logo to "None" by selecting the parameter and selecting **Clear**.
- Set End Action to "Take Next" by selecting the parameter and selecting **Next Logo**.
- In the Eng menu, enable **Trans Flip-Flop**.

How do I synchronize an SD or an HD system?

As background, the following three sections are worth reading:

- ***H & V Offset*** on page 118
- ***Sync Select*** on page 119
- ***Timing up an IconLogo*** on page 132

Much of the following discussion also applies to timing up an HD system.

1 Set the Sync Select menu option in the Engineering menu.

- Auto: The system automatically determines if a composite External Genlock signal exists.
  - If external genlock is present, the system will lock to it.
  - If external genlock is not present, the system will automatically switch to lock to the program input.
  - If external genlock is not present and the program input is not present, the system will automatically switch to lock to the external key input.

  In auto-mode, automatic non-synchronous detection between the external genlock and the program input is recognized, but no action is taken.
  - If the external program input does not line up vertically with the incoming external genlock, then non-sync is declared.
  - The reference LED on the I/O module will flash green and red, which indicates that the Genlock "V" is present but it does not line up vertically with the program input "V."
  - From the Control Panel, when the external genlock is present and the system is locked to the program input, the system is non-sync.
  - The V-offset can now be manually adjusted (or press auto-align) to line the program input "V" to the external genlock "V."
  - The system takes care of glitches in the program input by filtering out intermittent V mismatches; this allows a "clean-switch" (as per SMPTE specs) to occur with the program input.
- Prog/Ref.: Selects, alternately, program or external genlock as sync source.
  - If reference is selected, the system will only lock to external reference. There is no non-sync detection so the system will remain hard-locked to the reference. Adjusting the V-offset shifts the program input on screen.
  - Apply caution in manually adjusting V-offset. Technically there is only one correct value of V-offset for a system: the value that vertically aligns the program input to the external genlock. Any other value will cause the vertical blanking to appear in the middle of the active picture; a mistimed system may also in certain cases cause logo disruptions since a vertical transition will now been seen through a logo.
  - If program is selected, the system will only lock to program input. The program input is fed out exactly. Adjusting the V-offset has no effect. There is no non-sync detection (non-sync is meaningless in this mode).

  Please note that when the system is locked to the program input, adjusting V-offset does nothing **except in the case of non-sync** (auto-prog mode), where it is used to time the external genlock "V" to the program input "V." When that happens, the system exits non-sync mode and locks back to the reference (auto-ref mode).
- Fill/Key: Selects, alternately, Fill input or Key input as sync source.
  - If Fill is selected, the system will only lock to the fill input. Timing is extracted from the fill input. Adjusting V-offset will change the positioning of the program input.

- If Key is selected, the system will only lock to the key input. Timing is extracted from the key input. Adjusting V-offset will change the positioning of the program input.

2 Time up the system.

- Put the MGI-3903 in Reference mode.
- If the program input "V" does not line up with the reference "V," press auto-align to line up the "H" and "V"s.
- Put the MGI-3903 in Auto-Ref mode.
- If the program input "V" does not line up with the reference "V," non-sync will be declared.

What are Demux 1/2 and Embed 1/2 in the Audio Menu and how do they relate to the "Embedded Status"?

The IconLogo features two demultiplexors for embedded audio —demux 1 and 2. Either one can be sourced by any one of the four AES3 groups.

Coupled to demux 1 is embed 1. Demux 1 drives embed 1 (and similarly demux 2 drives embed 2). Embed 1 can then be instructed to insert the embedded audio into any one of four groups. Embed 2 can then be set to insert the embedded audio (that it received from Demux 2) into any one of the remaining three groups.

This combination of Demux 1/2 and Embed 1/2 allows you to switch AES3 groups and even replicate an AES3 audio group (please consult with your Customer Support Engineer if replicating audio).

The Embedded Status display shows the status of audio as received by Demux 1 and Demux 2. Thus, "SDI 1/2" and "SDI 3/4" are the embedded audio status of channels 1, 2, 3, and 4 as what is present on Demux 1 (which could be set to de-embed audio from any one of the four groups). Likewise, "SDI 5/6" and "SDI 7/8" are the embedded audio status of the four channels associated with Demux 2.

Are there any restrictions for using wall clock logos (digital or analog) in either the SD or HD IconLogo?

There are no restrictions for putting wall clock logos (digital or analog) on air and/or on preview in the IconLogo. Different wall clock logos can be put on simultaneously on any one, two, three, or all four layers (plus preview) of SD or HD. Wall clocks can be any size (up to 720×720 pixels), any opacity, and overlapped in any way if desired. A wall clock logo on a layer uses just that one layer and allows the other three layers to be used as regular logos (or wall clock logos) as well if desired (in both HD and SD).

While the system is loading up, only one wall clock (either digital or analog, on the most significant layer) will be rendered fully on air. After the system has loaded all appropriate logos from the compact flash, all on-air clocks are rendered onto air.

Under what situations can I use the video Key Output?

The Key Output video signal is intended to be used when the IconLogo is set to Fill and Key Mode (see ***Prog. Output*** on page 105). In such case, the keys corresponding to the fill out are inserted on a fully black output.

The Key Output video signal can be used in Program Mode as well. In this case, it should be used only as a confidence level for key presence and correctness and should not be used by a downstream keyer.

How are the Control Panel logos thumbnails managed both during boot-up and during normal operation?

Generally, logos are stored in the Compact Flash ("offline"). On power-up, logos are loaded from the Compact Flash to the DDR2 memory ("nearline"). Logos that are on-air are loaded first before those simply resident in the DDR2 memory. This allows real-time operation with animation, statics, clocks, and crawls.

To display a thumbnail logo on the Control Panel, it is read from either DDR2 memory (if it has been preloaded) or from the Compact Flash. To speed up logo loading, thumbnails are not displayed on the Control Panel during this initial boot-up phase.

While many operations are available during the boot phase, it is recommended that logos not be take or cut onto or from air during this initial phase.

While logo thumbnails are quite accurate in display, naturally they are scaled versions of the actual video logo. Under SD, animation and clock thumbnails are updated in near real-time for control panel display. Under HD, animation and clock thumbnails are not updated in real time and may require scrolling through the thumbnails to see the current video logo. Of course, video logos are always updated on air or on preview in real time.

Can I switch SD or HD standards live (while powered-on)?

In SD, the IconLogo can be switched from 525 to 625 (or vice versa) live without an adverse impact. The system may be required to time up.

In HD, the IconLogo can be switched around in the 1080i family live (for example, 1080i 59.9 to 50). Likewise, it can be switched around in the 720p family (59.9 to 50, or vice versa).

However, we do not recommend switching live between 1080i to 720p, or between SD and HD. The logos are stored as either progressive or interlaced in the DDR2. A live switch between these standards would require a logo reload for text, animation, and static logos (Compact Flash Reload) which can be done live; alternatively, the system can be power cycled. Also bear in mind, large screen logos in 1080i are beyond the screen capacity of 720p, and large HD logos are beyond the screen capacity of SD. Logos that are too large may appear corrupted.

What is the recommended Embedded Audio mode?

The MGI-3903 fully handles two AES embedded audio groups. It can de-embed any two groups from the full four groups, and re-embed them into any two groups of your choice.

The MGI-3903 permits four audio modes: Clean and Embed, Bypass, Clean, and Normal.

- **Clean and Embed** (recommended mode)
  Clean and Embed mode is recommended because it de-embeds up to two audio groups, cleans the HANC space, and re-embeds the two audio groups in a deterministic distribution. This allows the MGI-3903 to ensure the outgoing embedded audio remains clean regardless of any audio switch upstream.

- **Bypass**
  Bypass mode is used when the HANC space is not to be touched but simply passed through, regardless of what resides there.
- **Clean**
  Clean mode is used to wipe out everything in the HANC space.
- **Normal** (recommended for HD only)
  Normal mode is a hybrid mode that leaves any existing audio that is not de-embedded in the program feed (such as associated with AES groups that are present but not de-embedded by the MGI-3903). However, this mode not recommended in SD, since the outgoing distribution of the audio embedded by the MGI-3903 will differ from the audio that is not touched. An upstream audio switch (on the audio groups that are not handled by the MGI-3903) will then ripple through the MGI-3903 and be heard as disruption.

It is best to let the MGI-3903 handle all audio and set to Clean and Embed (or to Bypass when audio is not desired).

C LEDs and Indicators

Overview

The IconLogo logo inserter has four card-edge LEDs and four standard module indicators. (See page 168 for the meanings of the LED indicators. See page 169 for the meanings of the module indicators.)

The module generates visible alarm signals to alert users of failures or impending failures. These alarm signals can be found in the following locations:

- As red or yellow LEDs on the front module card-edge
- As red or yellow LEDs on the 3902AIC Alarm Interconnect Module or the 3902RES-E Resource Module (visible via light pipes through the frame's front panel)
- As part of a list of activated alarms found in the MGI-3903 **Setup** menu
- In external systems connected to the alarm contact closures at the back of the NEO frames
- On a PC screen where CCS Pilot™ or another GUI-based control application is being used

LED Locations

Figure C-1 identifies the locations of the LEDs and standard module indicators of the IconLogo modules. (For a front view of all LEDs and module indicators, see Figure 1-1 on page 9.)

Other modules and other components in the NEO frame also generate alarm signals. See the relevant frame or module manuals for details on these alarms.

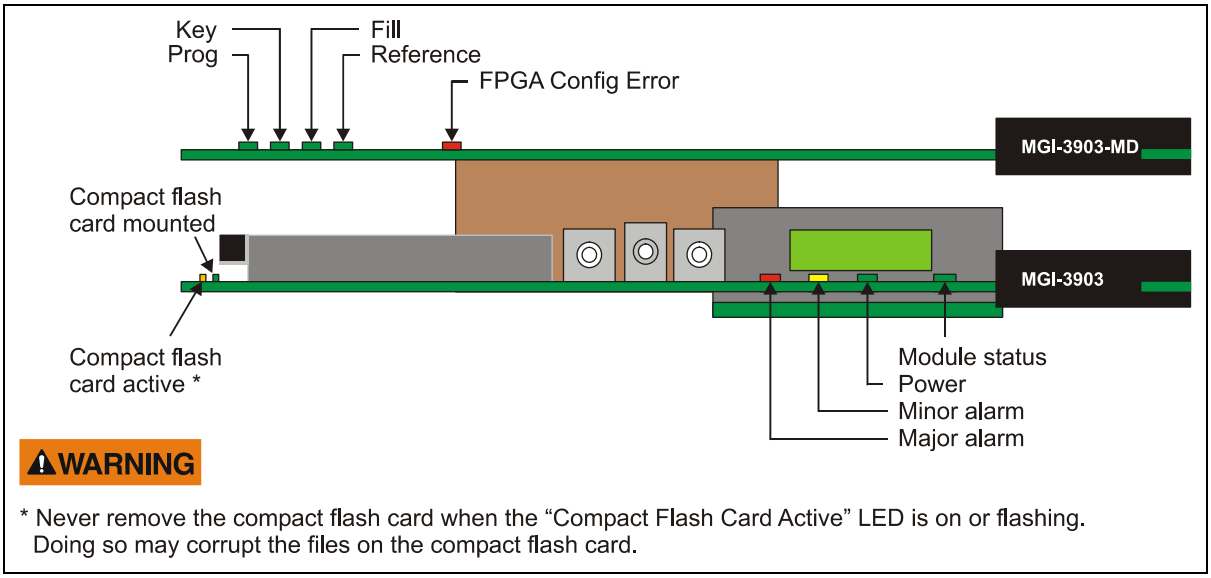


Figure C-1 Card-Edge LED and Module Indicators

Card-Edge LED Indicators

As seen on the front module view, there are a number of LED indicators on the lower main card and up to four on the upper interface card, as described in **Table C-1**.

Table C-1 LED Indicators on the Top Card and Their Meanings

LED Indicator	Color	Meaning (When Illuminated)
Prog	Red	The program input is not valid
	Green	The program input is valid
	Flashing red/ green	Input is at the wrong standard
	Flashing amber	(SD) There is an EDH error (HD) There is a CRC error
	Amber	The EDH Already flag is set
	(HD only) Fast blinking green	(HD only) Input is present but is not locked
Key	Red	The key input is not valid
	Green	The key input is valid
	Flashing red/ green	Input is at the wrong standard
	Flashing amber	(SD) There is an EDH error (HD) There is a CRC error
	Amber	The EDH Already flag is set
	(HD only) Fast blinking green	(HD only) Input is present but is not locked

Table C-1 LED Indicators on the Top Card and Their Meanings *(Continued)*

LED Indicator	Color	Meaning (When Illuminated)
Fill	Red	The Fill input is not valid
	Green	The Fill input is valid
	Flashing red/ green	Input is at the wrong standard
	Flashing amber	(SD) There is an EDH error (HD) There is a CRC error
	Amber	The EDH Already flag is set
	(HD only) Fast blinking green	(HD only) Input is present but is not locked
Reference	Green	The reference input is valid
	Red	The reference input is not valid
	(SD only) Slow Flashing Green/Red	Both external reference and program input are present and valid, but non-sync has been declared (that is, the two are not vertically timed up to each other).

Card-Edge Module Indicators

Table C-2 Card-Edge Standard Module Indicators and Their Meanings

LED Indicator	Color	Meaning (When Illuminated)
Compact Flash Card Active	Amber	The Flash card is actively being written to or read from – **do not remove the card when this LED is lit or flashing**
Compact Flash Card Mounted	Green	The flash card has been opened and the files system recognized by the IconLogo
Major Alarm	Red	There is a problem with the card that will stop the product functioning correctly
Minor Alarm	Amber	There is a minor problem with the card that may reduce the functionality of the product
Power	Green	The card is receiving power
Module Status	Green	The module is configured, loaded and operating correctly

A frame's active resource module provides additional LEDs that indicate conditions not included in these module-specific LEDs. See the card edge of the resource module for these LEDs.

D CCS Status Reporting

Overview

CCS compatibility with the following parameters available for status read-back and alarming (based on the SDI version only):

- Program input present/missing
- Fill input present/missing
- Key input present/missing
- Video standard detect 625/525
- On-line memory capacity over threshold (with threshold setting)
- Compact flash disk capacity over threshold (with threshold setting)
- Software version
- Firmware versions
- AES audio present/missing
- SDI embedded audio present/missing
- Machine format read-back (that is, SDI, HD)

CCS Status Reporting Parameter List

Table D-1 is long, flat list of all available parameters.

- Parameters are listed by card-edge ID, parameter name, description, and user range.
- Default values are marked with an asterisk (*).
- Parameters with the symbol *[RO]* are *read-only.* Read-only parameter default values are not highlighted, as they report system status indicators.

Parameters with the symbol *[E]* are visible only to system users who have an "engineer" designation assigned by a system administrator.

Table D-1 Card-Edge Status Reporting Parameter List

Card-Edge ID	Parameter Name	Description	User Range
Unit Name *[RO]*	MGI Name	MGI unit name	■ IconLogoH-RB ■ IconLogo-RB*
IP Address *[RO]*	IP Address	Fast Ethernet IP address	Ethernet IP address
Prog I/P *[RO]*	Prog Input Present	Program input present	■ Not missing ■ Missing*
Fill I/P *[RO]*	Fill I/P Present	Fill input present	■ Not missing ■ Missing*
Key I/P *[RO]*	Key I/P Present	Key input present	■ Not missing ■ Missing*
Ref I/P *[RO]*	Reference I/P	Reference input present	■ Not missing ■ Missing*
Embed 1/2 *[RO]*	Embedded Audio 1/2	Embedded audio 1/2 status	■ Not missing ■ Missing*
Embed 3/4 *[RO]*	Embedded Audio 3/4	Embedded audio 3/4 status	■ Not missing ■ Missing*
Embed 5/6 *[RO]*	Embedded Audio 5/6	Embedded audio 5/6 status	■ Not missing ■ Missing*
Embed 7/8 *[RO]*	Embedded Audio 7/8	Embedded audio 7/8 status	■ Not missing ■ Missing*
AES 1/2 *[RO]*	AES 1/2 Status	AES audio input 1/2 status	■ Not missing ■ Missing*
AES 3/4 *[RO]*	AES 3/4 Status	AES audio input 3/4 status	■ Not missing ■ Missing*
AES 5/6 *[RO]*	AES 5/6 Status	AES audio input 5/6 status	■ Not missing ■ Missing*
AES 7/8 *[RO]*	AES 7/8 Status	AES audio input 7/8 status	■ Not missing ■ Missing*
LTC Status *[RO]*	LTC Status	LTC status	■ Not missing ■ Missing*
Temp Probe *[RO]*	Temp Probe Status	Temperature probe status	■ Not there* ■ There
DDR Size *[RO]*	DDR Store Size	DDR store size	■ Not missing ■ Missing*
DDR Usage *[RO]*	DDR Store Usage	DDR video/audio store usage	0% to 100%
DDR Thresh *[RO]*	DDR Capacity Thresh	DDR capacity threshold	1% to 100% (95%*)
DDR Alarm *[RO]*	DDR Alarm	DDR alarm	■ No* ■ Yes

Table D-1 Card-Edge Status Reporting Parameter List *(Continued)*

Card-Edge ID	Parameter Name	Description	User Range
CF Card *[RO]*	Compact Flash Card	Compact flash card present	■ Not missing ■ Missing*
CF_Usage *[RO]*	Compact Flash Usage	Compact flash usage	0% to 100%
CF Thresh	CF Capacity Threshld	Compact flash capacity threshold	1% to 100% (95%*)
CF Alarm *[RO]*	CF Alarm	CF alarm	■ No* ■ Yes
CF Reload	Compact Flash Reload	Compact flash reload	■ Yes ■ No*
Network	Network Enable	100Base-T network enable	■ Yes* ■ No
Eth_Status	Ethernet sStatus	Ethernet status	■ Yes ■ No *
Fill & Key *[E]*	Fill & Key Mode	Program output fill & key	■ Yes ■ No*
Pro Alarm	Program Alarm	Program alarm	■ Yes ■ No*
Fill Alarm	Fill Alarm	Fill alarm	■ Yes ■ No*
Key Alarm	Key Alarm	Key alarm	■ Yes ■ No*
LTC Alarm	LTC Alarm	Linear Time code alarm	■ Yes ■ No*
Ref Alarm	Reference Alarm	Reference alarm	■ Yes ■ No*
Probe Alarm	Probe Alarm	Probe alarm	■ Yes ■ No*
AES 12 Alarm	AES 12 Alarm	AES 12 alarm	■ Yes ■ No*
AES 34 Alarm	AES 34 Alarm	AES 34 alarm	■ Yes ■ No*
AES 56 Alarm	AES 56 Alarm	AES 56 alarm	■ Yes ■ No*
AES 78 Alarm	AES 78 Alarm	AES 78 alarm	■ Yes ■ No*
Emb 12 Alarm	Emb 12 Alarm	Emb 12 alarm	■ Yes ■ No*
Emb 34 Alarm	Emb 34 Alarm	Emb 34 alarm	■ Yes ■ No*

Table D-1 Card-Edge Status Reporting Parameter List *(Continued)*

Card-Edge ID	Parameter Name	Description	User Range
Emb 56 Alarm	Emb 56 Alarm	Emb 56 alarm	■ Yes ■ No*
Emb 78 Alarm	Emb 78 Alarm	Emb 78 alarm	■ Yes ■ No*
Eth Alarm	Ethernet Alarm	Ethernet alarm	■ Yes ■ No*
Subnet Mask	Subnet Mask	Subnet mask	255.255.0.0
Automation	Automation Protocol	Automation protocol Note: M2100 is not currently implemented	■ Auto_Disabled* ■ M2100 (not currently implemented) ■ MGI ■ PBUS
OnAirLogos	On Air Logos Restore	On power up restore on air logos	■ Do Not Restore ■ Restore*
LogoPath	Logo Path	Location of the logo link files	Valid logo path
AAStatus *[RO]*	Auto Apology Status	Alarm to indicate the apology logo is on air	
AALogo	Auto Apology Logo	Select which logo to use for auto apology	0 to 999
AAFault	Auto Apology Fault	Select the condition when the apology logo is displayed	■ No Reference* ■ Prog. I/P Lost ■ Any I/P Lost
AATimeout	Auto Apology Timeout	How long an error must persist before an apology logo is displayed on air	00:00:00:00 to 23:59:59:59
TCSource	Timecode Source Select	Timecode Source Select	■ Internal* ■ LTC ■ DCF
TCOffset	Timeout Offset	Offsets the incoming timecode by this amount before using	00:00:00:00 to 23:59:59:59
Temp [RO]	Temperature	temperature	-50°C to 50°C

Table D-1 Card-Edge Status Reporting Parameter List *(Continued)*

Card-Edge ID	Parameter Name	Description	User Range
FontStatus *[RO]*	Font Status	Font status	1: OK 2: OK 3: OK
EAMode	Embedded Audio Mode	Embedded audio mode	■ Normal* ■ Clean Embedded ■ Clean ■ Bypass
OutputStd	Output Standard	Output video standard	■ Auto * ■ 525 59.94 Hz ■ 625 50 Hz ■ 720p 60 Hz ■ 720p 59.94 Hz ■ 720p 50 Hz ■ 1080i 60 Hz ■ 1080i 59.94 Hz ■ 1080i 50 Hz

Viewing IconLogo Parameters Using CCS Software

To discover your module, your Navigator software must be in Build mode.

1. If the Discovery window is not open, click **Tools** > **Discovery** in the main menu.

   A **Discovery** window opens, most likely in the bottom left corner of the screen.
2. Click **Options**, and then click **Add**.
3. Enter the IP address of the frame that contains your module.
4. Click **OK** to close the **Add Host** dialog box, and then **OK** again to close the **Discovery Options** dialog box.
5. Click **Start**.

   This triggers Navigator to run a discovery. When the discovery finishes, **Discovery Completed** is displayed in the **Discovery** pane.
6. Click **Save** to save the results of your discovery to the **Discovery** folder of the Navigation pane.
7. Switch to **Control** mode by selecting **Operational Mode** > **Control** from the main menu.
8. Double-click **IconLogo** in the Navigation pane.

   The Control window opens displaying the module's controls.

You can now switch to **Control** mode by selecting **Operational Mode** > **Control** from the main menu. Double-click the frame to expand it, and then double-click **MGI-3903**. The **Control** dialog box opens displaying the module's controls.

Table D-2 lists all of the remote control parameters and options for the IconLogo To access these parameters, you can use CCS Navigator. See your software user manual for more information.

Note that rows in the table that contain a range of numbers in parentheses indicate that a series of numbered parameters contain that same function and range.

Legend

Bold option=Indicates that this is the default setting for the parameter.

Rows of the table that are in grey are read-only parameters.

All parameters clip unless otherwise indicated.

Table D-2 IconLogo CCS Parameter List

Path	Parameter	Options
Status > Other		
	MGI Name	■ IconLogoH-RB ■ IconLogo-RB*
	IP Address	Ethernet IP address
	Subnet Mask	255.255.0.0
Other		
	DDR Capacity Alarm	■ Yes ■ No*
	CF Alarm	■ Yes ■ No*
	Network Enable	■ Yes* ■ No
	Programme I/P Alarm	■ Yes ■ No*
	Fill Input Alarm	■ Yes ■ No*
	Key Input Alarm	■ Yes ■ No*
	LTC Missing Alarm	■ Yes ■ No*
	Ref Input Alarm	■ Yes ■ No*
	Temp Probe Alarm	■ Yes ■ No*
	AES 1/2 Alarm	■ Yes ■ No*
	AES 3/4 Alarm	■ Yes ■ No*
	AES 5/6 Alarm	■ Yes ■ No*
	AES 7/8 Alarm	■ Yes ■ No*
	Embedded 1/2 Alarm	■ Yes ■ No*

Table D-2 IconLogo CCS Parameter List *(Continued)*

Path	Parameter	Options
	Embedded 3/4 Alarm	■ Yes ■ No*
	Embedded 5/6 Alarm	■ Yes ■ No*
	Embedded 7/8 Alarm	■ Yes ■ No*
Input > Other		
	Prog Input Present	■ Not missing ■ Missing*
	Fill I/P Present	■ Not missing ■ Missing*
	Key I/P Present	■ Not missing ■ Missing*
	Reference I/P	■ Not missing ■ Missing*
	Ethernet Status	■ Yes ■ No *
Input > DeMultiplx		
	Embedded Audio 1/2	■ Yes ■ No*
	Embedded Audio 3/4	■ Yes ■ No*
	Embedded Audio 5/6	■ Yes ■ No*
	Embedded Audio 7/8	■ Yes ■ No*
	Embedded Audio Mode	■ Normal* ■ Clean Embedded ■ Clean ■ Bypass
Input > Embedding		
	AES 1/2 Status	■ Yes ■ No*
	AES 3/4 Status	■ Yes ■ No*
	AES 5/6 Status	■ Yes ■ No*
	AES 7/8 Status	■ Yes ■ No*
Input > Clock		

Table D-2 IconLogo CCS Parameter List *(Continued)*

Path	Parameter	Options
	LTC Status	■ Not missing ■ Missing*
	Timecode Source	■ Internal* ■ LTC ■ DCF
	Timecode Offset	00:00:00:00 to 23:59:59:59
Input > AtoD		
	Temp Probe Status	■ Not there* ■ There
	Temperature	-50°C to 50°C
Processing > Other		
	DDR Store Size	**512 MB**
	Automation Protocol	■ Auto_Disabled* ■ M2100 (not currently implemented) ■ MGI ■ PBUS
	Font Status	1: OK 2: OK 3: OK
Processing > Marker Beep		
	DDR Store Usage	0% to 100%
	DDR Capacity Thresh	1% to 100% (95%*)
	Compact Flash Usage	0% to 100%
	CF Capacity Threshld	1% to 100% (95%*)
Processing > Logo		
	Compact Flash Card	**488.47 MB**
	Compact Flash Reload	■ Yes ■ No*
	On Air Logos Restore	■ Do Not Restore ■ Restore*
	Logo Path	Valid logo path
	Auto Apology Status	Off Air
	Auto Apology Logo	0 to 999
	Auto Apology Fault	■ No Reference* ■ Prog. I/P Lost ■ Any I/P Lost
	Auto Apology Timeout	00:00:00:00 to 23:59:59:59

Table D-2 IconLogo CCS Parameter List *(Continued)*

Path	Parameter	Options
Output > Other		
	Fill & Key Mode	■ Yes ■ No*
	Output Standard	■ Auto ■ 525 ■ 625

E Compatible DDR2 Memory Modules

Overview

The following memory modules work for all logos, and for non-volatile parameter storage on the DIMMs E2PROM.

Kingston Technology Company

The following Kingston® PC3200 ValueRAM® SODIMMs[1] (200-pin DDR2 SODIMMs, CL4, non-registered, non-ECC, non-kit) have been qualified for use on IconLogo systems.

Table E-1 Qualified Kingston Technology SODIMMs

Part Number	Size
KVR533D2S4/2G	2 GB

Memory Configurations

The following SODIMM and SODIMM2 memory configurations have been qualified for use on IconLogo systems:.

Table E-2 Qualified SODIMM and SODIMM Memory Configurations

SODIMM1	SODIMM2	Total Memory
1 GB	None	1 GB
1 GB	1 GB	2 GB
2 GB	None	2 GB
2 GB	2 GB	4 GB

Two SODIMM configurations must use identical modules (manufacturer and part number).

[1] "Kingston" and "ValueRAM" are registered trademarks of Kingston Technology Company, Fountain Valley, California.

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